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CAYWOOD & CO'S ELEVATOR AT CLIFTON, KAN.

Few states have as many first class country elevators as Kansas, and we doubt if any has more. One of the best, if not the best plant of this class, is the 75,000-bushel house of Caywood & Co. at Clifton, Kan., which was built in 1889.

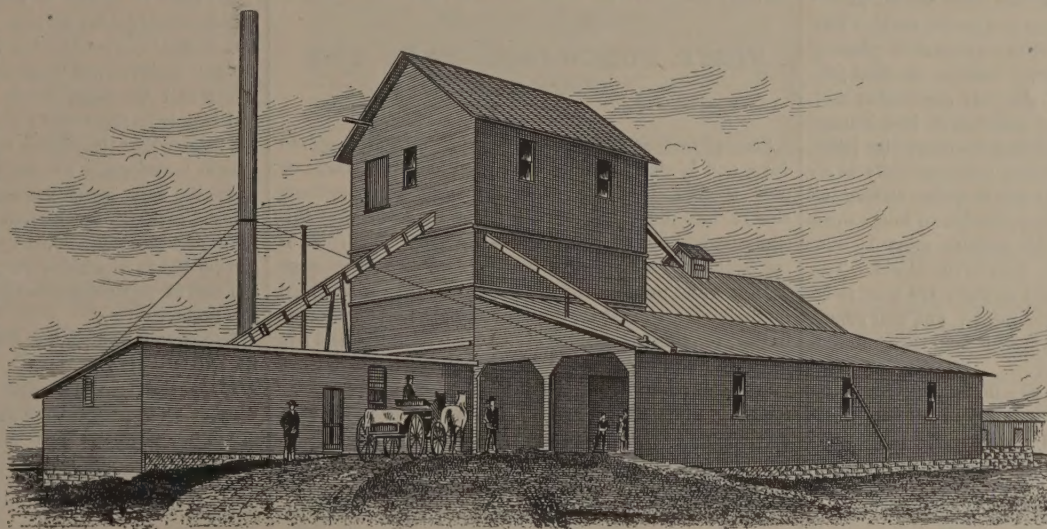
The illustration given herewith represents a north view of the house. On the south side are the tracks of the Chicago, Rock Island & Pacific Railroad Company. The house is substantially constructed, each division has a steel roof and beaded iron siding. The double driveway, as can be seen in illustration, is of easy access. It is 24 feet wide, 20 feet high, and 78 feet long. The driveway contains ten dumps with dump basement 16 feet deep, from which the grain is taken by two lines of conveyors, one a Caldwell Screw Conveyor, and the other a Harrison Conveyor.

The total length of plant is 118 feet. The highest part of the building is 30x24 feet and has a basement 23 feet deep; it measures 75 feet from bottom of basement to peak of roof. The railroad track is 17 feet above bottom of basement. The addition adjoining the high part on the west is 48x24 feet wide. It has a basement 16 feet deep, and the distance from the bottom of basement to peak of roof is 46 feet. The engine room and fuel house on the east is 40x24 feet wide and 18 feet high. The walls of the engine room are made of stone and metal wall lining. The basement is 78x48 feet and its depth ranges from 16 to 25 feet. Its walls are made of Manhattan stone. It has a stone and concrete bottom, and a wooden floor 14 inches above it, so as to permit the passage of air, and to keep rats and moisture out.

The office and wagon scales, although not shown in illustration, are near to the elevator.

The elevator contains 26 bins, with a storage capacity of 75,000 bushels. Half of this storage capacity is below the line of the driveway, the average storage depth below that line is 16 feet, and the average pit depth is 25 feet below that line. The dump bins are so arranged that they can receive grain from different dumps. Five of the bins can receive from two dumps, three from three dumps, and two from one dump. One conveyor

takes grain from the dump bins and discharges into elevator boots on the north side of the house, while the south conveyor may be made to discharge into any elevator boot in the house. Few country houses have such excellent facilities for rapidly receiving and disposing of grain. Grain of like quality can be precipitated at the same time from three dumps into the same dump bin below, and most of the other dumps can discharge into more than one dump bin so that the farmers seldom have to wait to unload their grain. Only one accident has occurred on this dump in three years, and this was the farmer's fault, as he drove on the dump before it was set. However, it did not result seriously.



CAYWOOD & CO'S ELEVATOR AT CLIFTON, KAN.

On the main floor is a large Barnard & Leas Cleaner. In the cupola is a Western Sheller and Cleaner made by the Union Iron Works. A 42,000 bushel Howe Hopper Scale is also in the cupola. The scale rod extends to lower floor so that weighman can weigh grain without going up stairs. The hopper bottom cleaning bins, sacking bins, and wagon bins are immediately under the hopper scale, so that grain can be easily thrown into cleaning bin, sacked or discharged into wagons. Grain can be discharged into cleaning bin with two lines of elevators. On the south side of building are car chutes for receiving grain for cleaning or shelling in transit.

The tailings from the cleaner in the top of cupola are sent to the fuel house, the cobs are sent to another place and sold for fuel. This cleaner is driven by an ingenious device, the object being to reduce the fire risk and avoid the necessity of making frequent trips to the top of the house. This device, which is illustrated herewith, prevents slipping of belts, heating of journals and jarring

of machine. The cleaner can be heavily loaded and the belts run comparatively loose without slipping. Belts can easily be placed or removed. The speed of cleaner is 575 revolutions per minute. In the illustration *A* represents pulley on top counter shaft, which drives cleaner, *C* the pulley on cleaner, *B* and *D* are idlers on either side of and close to *C*. This arrangement is horizontal, but will work as well vertical or at an angle by shifting position of idlers.

The power plant consists of a 30-horse power engine and 35-horse power boiler. The metal smokestack is 24 inches in diameter. In the engine room are also steam pumps, an injector and sufficient fire hose to throw water into any part of the building. From the engine power is transmitted to the line shaft in basement by an 18-inch four-ply belt, and from that by a counter belt drive to top counter shaft in cupola.

From 600 to 1,000 cars of grain are annually handled at this elevator. Grain is stored for one-half cent per bushel per month, 1 cent per bushel is charged for cleaning and loading out. The firm buys most of the grain stored in the house as the farmers desire to sell.

The firm of Caywood & Co. is composed of E. P. Caywood and E. W. Caywood, and it deals in coal and live stock as well as grain. The firm is enter-

prising, progressive and prosperous and does business on strict business principles.

The exports of timothy seed in December reached 1,046,012 pounds, compared with 693,095 pounds in the preceding December, but the exports for the year were only 7,960,627 pounds, valued at \$316,871; compared with 11,327,801 pounds, valued at \$492,625, for the preceding year.

We imported 348,892 bushels of barley in December, against 167,109 bushels in the December preceding, and during the year we imported 3,196,407 bushels, valued at \$1,681,542, against 9,325,456 bushels, valued at \$5,047,711, during the year 1890. In December we exported 235,629 bushels of imported rice, against none in the preceding December; and for the year 723,537 bushels, valued at \$414,009, against 9,793 bushels, valued at \$3,322, for the year 1890.

CRIBBED AND FRAME ELEVATORS.

BY R. JAMES ABERNATHEY.

Would you build a cribbed or a frame house? is a question often asked by inexperienced grain men when about to build an elevator. Well, the circumstances must have some influence on the answer to the question. If the location is permanent, the surrounding country an unfailing grain section and there are all the other advantages needed to make grain handling a continued success, then, as a rule, it will be found better, and, in the end, cheaper to build a cribbed house; not, however, because a permanent and long-lasting frame house cannot be built for it can if sufficient trouble is taken to do it. Although of the most substantial character the building of a cribbed house is a very plain job. Good judgment is needed, but extraordinary skill is not required in the erection of the house. Plain work can be done with common or plain labor if properly looked after by competent superintendents. In other words, a full force of the highest priced labor need not be employed on such a job, provided there are good foremen, and hence a job just as good can be done at less expense than if it were necessary to employ the most skillful artisans right through. Please bear in mind that we are now talking of execution only without reference to designing. That phase of the subject will come in view later.

Discretion and good sense should be exercised in the employment of the unskilled labor, to the end that quick, active and energetic men be secured. Men who are always half asleep on their feet are not the kind to have on an elevator job; because, as well as being of but little value as workmen, they are liable to fall off the work somewhere and get maimed or killed. When a cribbed house is contemplated all the work from the bottom of the foundation up, should be in harmony; that is, all should be strong. A superstructure of that kind should not be set on a light and flimsy foundation. The foundation walls must be heavy and strong in proportion to size and storage capacity of building. The walling timber for the superstructure need not be of a high grade but should be free from loose knots that are liable to come out and leave holes in the walls. If such happen to be in any piece of timber they should be cut out by the workman before being laid in the walls. The pieces should be accurately sized in thickness by planing either one or both sides, the latter making the best job, although when planed on one side only the lumber may not cost so much. Either way, uniformity in thickness of pieces is of prime importance because otherwise joints cannot be made tight. Open joints tend not only to allow storms to beat through, but also facilitate rotting, as more or less dampness will always be found in the open joints. The smooth edge of the timbers must be outward so as to present a smooth face to the world. The inside will be rough and irregular as there are sure to be differences in the width of the pieces, but that effects nothing as it is out of sight, and will hold the grains as well as though perfectly smooth.

The greater the number of bins a house is divided into the stronger it will be in resisting outward pressure when full of grain. It is not deemed advisable, though, to unnecessarily increase the number of bins for the sole purpose of strengthening the building, as it increases the cost, and, if needed, it can otherwise be strengthened at less expense. As a general thing, actual requirements for the convenient handling of the grain demand a sufficient number of bins to add all the strength needed. But it was not so much the intention to give instructions for building as to give an opinion on the different and best modes of building; but the two parts are so closely allied that it is somewhat difficult to give one without giving some of the details of the other; and it will therefore be repeated that, for reasons here partly given, in most cases where permanency is the chief requisite, a good, well-built cribbed house is, all things considered, the best. Notwithstanding, however, very good frame houses can be built and as they are somewhat cheaper and can be made much cheaper there can be nothing urged against their erection where conditions and circumstances demand it. What is called the "balloon frame" is the most common style and when well tied together with iron rods it makes a rather strong house and one which, when not run too high up, answers the purpose very well. A better grade of lumber is required for the frame than for the cribbed house. There should be no

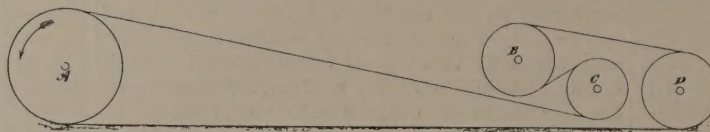
bad knots anywhere and especially none in the upright studding, as they tend to weaken where great strength and endurance are demanded.

Sometimes these balloon frames are lined on the inside and sided up on the outside. The inside lining is of no particular advantage if good material is used on the outside, as good flooring well nailed to the studding. Aside from being quite unnecessary the inside lining not only adds to the expense but also destroys considerable storage room. If the studding be six inches deep, and it is rarely less than that, the lining cuts off from the storage capacity of the building just that many inches in depth and in surface equal to the length, width and height of the building, which in a building of any size amounts to a great deal. If the studding be eight inches deep as is the case in larger buildings just that much more room will be lost.

While no special mechanical skill in the matter of workmanship is required on a balloon frame house still the work should be well done and men skilled in that kind of work should be at the head of it, men capable of leading unskilled men and seeing that good work is done at every point, for, while skill may not be required in doing the work, it should nevertheless be well done.

What may be styled regular frame work makes a very substantial and durable house, but on account of the extra work the plan is seldom resorted to. Besides, the timbers require to be heavier and of a generally better grade of lumber. It is rather more expensive, takes more time, also more trouble and hence is not and could not be popular.

However, no matter what kind of a house a grain man designs to build, he should at the start employ some one



CORN CLEANER DRIVE IN CAYWOOD & CO.'S ELEVATOR.

well understanding all such work, to make the plans for the whole structure from foundation to cupola. When good working plans are once provided, then with the aid of a few skilled men an elevator job can be run to good advantage and a first-class job done, but scarcely without it.

FIRST PURCHASER PAYS THE STORAGE.

Storage rates at Chicago are $\frac{3}{4}$ cent for the first ten days, and $\frac{1}{2}$ cent more for each additional ten days or part thereof. This is what the elevator proprietors charge, but must not be construed to mean that this charge comes out of the country shipper. The rules of the Board of Trade provide that $\frac{3}{4}$ cent storage must go with the first purchase of the grain, and this is accepted by the buyer, so that the country shipper has no storage to pay, provided he has his grain sold within the first five days after arrival, as the receipts must have five days to run free of additional storage—the first charge being for ten days. Should the country shipper prefer to have his grain held until the five days have elapsed, then he is charged $\frac{1}{2}$ cent storage, but then has the right to hold the grain ten days more, thus virtually having obtained fifteen days' storage for his grain for $\frac{1}{2}$ cent. Each additional ten days will cost $\frac{1}{2}$ cent more, and so on. The point which many country shippers have not understood and frequently inquire about, is the first $\frac{3}{4}$ cent storage, and this explanation is given for this purpose. Remember, if the grain is sold on arrival or within five days thereafter, the country shipper pays no storage.

There are three terms applied to receipts—"gilt edge," those but three days old, having, consequently, seven days to draw from elevator on first storage of $\frac{3}{4}$ cent per bushel; "regular," those five days old, and having five days to run on current storage; "short receipts," those having but one or two days to run before additional storage accrues. Most of the receipts are sold "gilt edge," being most desirable on account of having longest time to run without additional storage.

Another point to which it is necessary to call the attention of shippers is the charging of interest on all advances made on grain, seed, provisions, or any kind of property handled on the Chicago Board of Trade, also the approved rate of insurance. The rules of the Board make it compulsory to do this.—*Trade Bulletin*.

WHEAT-GROWING IN OHIO.

The Director of the Ohio Agricultural Experiment Station, Charles E. Thorne, has issued a bulletin relating to wheat culture in the state during a period of forty years. The soil and climate of Ohio are recognized as especially adapted to culture of this cereal. In the period of ten years from 1850 to 1859 inclusive the yearly average yield for the state was as high as 18 bushels and as low as 7.2—the general average being 12.3. For the next ten years, ending with 1869, as low as 4.8 bushels is recorded, the highest being 15.4, and the general average 11.0. Better results were obtained in the next decade, ending with 1879, the lowest yearly average being 9.2, the highest 17.8, and the general average 13.4. For the fourth decade, ending with 1889, the lowest yearly average was 9.8, the highest 17.2, and the general average 13.7.

During the period of forty years there were seven seasons in which the average yield fell below ten bushels per acre. For the entire period the average was 12 $\frac{3}{4}$ bushels.

The greatest yearly production was in 1880, 48,540,000 bushels; the smallest, in 1866, 6,150,000 bushels. The yearly average for the entire period, 24,200,000 bushels.

It is stated that the farmers of Ohio are now spending nearly a million dollars annually in purchase of commercial fertilizers, chiefly used in production of wheat. Such fertilizers were not used largely previous to 1875, but since then their use has been rapidly increased. In 1889 the outlay for fertilizers reached \$1,675,270.

In making a comparison of the growth of population and of wheat production in Ohio Mr. Thorne expresses the conviction that it will probably be several centuries before the state will contain enough people to consume her production of wheat. He further observes:

What is true of Ohio is true to a greater or less extent of the entire winter wheat belt of North America. The area now sown to wheat

in this region may be expanded largely without infringing upon other productions, and the rate of yield may and will be very materially increased by better husbandry, including an intelligent use of manures and fertilizers and more thorough drainage.

Let there be given a little stimulus in the shape of higher prices for wheat and we shall see a rapid expansion in the total production in this country, while there are still undeveloped regions in South America, South Africa and Australia, which will eventually be made to add largely to the world's supply of breadstuffs.

I believe that the future outlook for the Ohio wheat-grower is eminently a hopeful one, but I do not expect to see the very great increase in price of wheat that is being predicted by certain statistical writers. In my judgment the great opportunity for the Ohio wheat-grower lies in increasing the yield per acre, in reducing the cost of production and in improving the quality of the grain.

In concluding his interesting report, Mr. Thorne offers the following:

It appears from this statistical study of the wheat harvests of Ohio that the average yield of wheat is increasing in the northern and central sections of the state, while it is at a standstill, and standing at far too low a point for profit, in the southern and southeastern counties.

It would seem that the profitable culture of wheat on the steep hillsides of Southern Ohio is a hopeless undertaking; that the great problem before the wheat grower of the central belt of counties is winter-killing, a problem which may be partially solved by underdrainage and the intelligent use of clover and manures; and that in the northern counties climatic influences are more generally favorable to wheat culture than elsewhere in the state.

These statistics indicate that the wheat crops of Ohio have been slightly increased by the use of commercial fertilizers, but it appears that the average cost of this increase has equaled its market value, and that a general improvement in the methods of agriculture has contributed more largely to the increase of Ohio's wheat crops than the use of purchased fertility.

It would seem that the total area under wheat might be considerably enlarged, and at the same time more closely restricted to lands adapted to tillage, and that the yield per acre may be so increased that the total production shall reach double the quantity now annually produced.

FLAXSEED.

The Toledo *Market Report*, in its issue of January 28, presented a statement of the flaxseed crop of the United States for 1891, compiled by Taylor, Major & Co. of Toledo, which is considered by many as being too great. It exceeds the estimate published in the November issue of the AMERICAN ELEVATOR AND GRAIN TRADE by nearly 4,000,000 bushels. That estimate appeared first in *Bradstreet's*. It is as follows:

	Acres.	Bushels.
Ohio.....	18,498	133,912
Indiana.....	3,011	26,349
Illinois.....	4,438	35,013
Wisconsin.....	6,451	68,909
Minnesota.....	425,089	4,082,981
Iowa.....	280,704	2,898,596
Missouri.....	66,577	459,848
Kansas.....	360,000	2,600,000
Nebraska.....	240,000	1,975,000
North Dakota.....	115,000	580,000
South Dakota.....	390,446	2,431,504
All other.....	17,079	163,160
Totals.....	1,927,293	15,455,272

The statement which appeared in the Toledo *Market Report* is that, the flax crop of 1891 has been a continual surprise. We can only estimate on the outcome, but with the facts of 1890 and the unprecedented receipts of 1891, we have a crop exceeding all others by four million bushels.

The Chicago report gives the following:

	Bushels.
Receipts Aug. 1, 1890, to Jan. 1, 1891.....	6,575,500
Receipts Aug. 1, 1891, to Jan. 1, 1892.....	11,072,350
Stocks on hand Jan. 24, 1890.....	365,868
Stocks on hand Jan. 25, 1891.....	1,936,118
Stocks on hand Jan. 26, 1892.....	5,106,660

Since Oct. 1, 1891, the United States has exported 3,800,000 bushels, while the exports of all former years combined would not aggregate 500,000 bushels. The imports from India have dropped from 3,000,000 bushels in 1890 to 125,000 bushels in 1891. This country consumes in oil per year the product of 12,000,000 bushels of flax. Hence the present stock will supply our demands for two years, and the outlook for good prices is not bright: Cash flax, Jan. 24, 1890, \$1.35; Jan. 25, 1891, \$1.17; Jan. 26, 1892, 95c.

Yield of crop 1891 as follows:

State.	Acres.	Bus. p'r acre.	Yield. in Bus.
North Dakota.....	109,000	12.	1,308,000
South Dakota.....	355,000	11.	3,905,000
Minnesota.....	391,000	11.5	4,496,500
Iowa.....	309,000	10.5	3,244,500
Nebraska.....	183,000	9.	1,647,000
Kansas.....	375,000	8.5	3,187,500
Missouri.....	92,000	6.	552,000
Idaho and Washington.....	12,000	12.5	150,000
Balance United States.....	96,000	7.	672,000
Total amount carried over from 1890.....			3,600,000
Available stock.....			22,762,500

After the foregoing statement was issued the price of flaxseed continued to decline, and reached a price lower than it was ever known to be before. Many claim that it reached an export basis while others hold that it has not recently been low enough to admit of a fair profit being made on export business. The amount in store in Chicago public elevators the first Saturday of February was nearer to 4,000,000 than 5,000,000 bushels. The *Trade Bulletin* of February 6, in its weekly trade review, says:

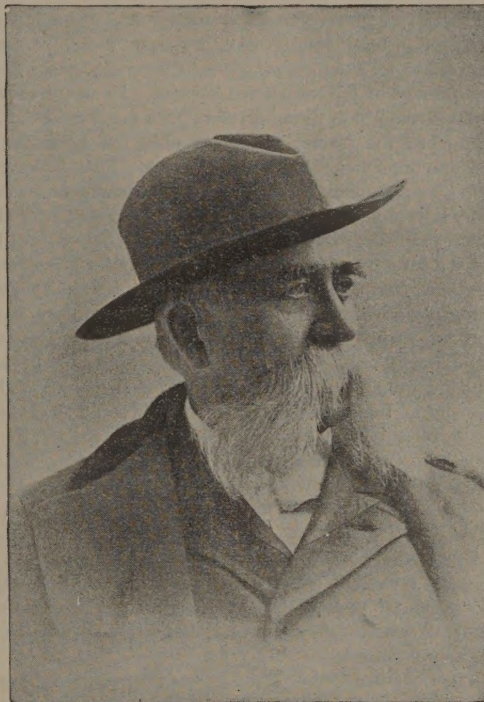
"The dull, heavy feeling which has been hanging over the market for some time culminated the past week in a season of depression and lower prices. Continued withholding of demand began to tell. It created an easier feeling which carried with it a desire to realize on the part of some, and others interested in having the market go down were disposed to assist it in that direction.

"The influences brought to bear upon the market were all of a bearish nature. Stocks were placed in comparison with consumption; and it was claimed there was right here nearly a third the quantity which is annually consumed. This would not be so bad if the past export trade could be relied on, but buyers for foreign account did not talk encouragingly. They had no orders for the market on the other side was lower. Decline in prices was in part attributed to the fact that in the Argentine Republic, South America, a good crop has just been gathered, with contracts made for forward delivery to foreign markets. There could be only one reason for foreign houses engaging in these transactions and that

would be on account of being able to do better than here. May delivery declined so rapidly that carriers did not care to purchase cash seed. Crushers at times bought fairly but they did not stay in the market regularly. Shippers increased their purchases somewhat as prices went down. Still the shipping trade remains quiet. Arrivals continued fair. There were 294 cars during the week."

HON. EDWARD F. JONES.

The subject of this sketch was born in Utica, Oneida Co., N. Y., on the 3d day of June, 1828, of New England parents, who were temporarily residing there, but soon after returned to Massachusetts, where he spent the early years of his life. He resided in the town of Leicester, Worcester Co., Mass., attending the district schools, which, with a few terms at old Leicester Academy, completed his school education. At the age of 16 he procured a situation as a boy in a wholesale dry goods store on Milk street, Boston, where he performed the usual work allotted to a boy, such as opening and closing the store, building fires, sweeping out and carrying bundles, in fact, responding to any call within the ca-



HON. EDWARD F. JONES

capacity of his age and strength. For this year's work he received the customary price, which was \$50.

At the age of 20, becoming impatient at his slow progress, he saved enough from his scanty earnings to pay his passage on a trading vessel to the West Indies, where he went to seek his fortune. He first landed on the island of Barbadoes, where he spent several weeks, but did not advance his fortune. Becoming discouraged, he was very glad indeed to accept passage home, which was tendered him by the captain of a vessel who brought a cargo of lumber, on condition that he would act as supercargo in discharging the vessel and reloading with salt at Turk's Island. He returned to Boston, and again entered the dry goods business, where he acted as salesman for several years.

About the year 1858 coal oil was being introduced for illuminating purposes. He invented an improvement in lamps for burning kerosene, upon which he secured a patent, from which during the life of the patent, fourteen years, he received in royalties more than \$100,000. Becoming interested in lamps naturally led him into the oil business, and he was one of the founders of the Glendon Coal Oil Company, in which he was interested until the works were destroyed by fire Christmas eve, 1860.

He had been for many years connected with the Massachusetts militia, and was, at the beginning of the troubles which led to the Civil War, colonel commanding the Sixth Regiment of Massachusetts militia. At his request the officers of the regiment, by resolution, authorized him to tender the services of the regiment in case the threatened conflict between the North and South should result in open warfare. This action led Governor Andrew to give Colonel Jones carte blanche to put his regiment in marching order for active service.

Fort Sumter was fired upon, President Lincoln issued a call for 75,000 men, and Colonel Jones' regiment was the first called into service by Governor Andrew. This regiment, although scattered over several counties, was at headquarters and ready to march sixteen hours after the order was issued from the Adjutant-General's office. Leaving Boston on the evening of the 17th of April, passing through New York and Philadelphia, reached Baltimore on the 19th of April, where the regiment was attacked, and the first martyrs of the Civil War met their death, the regiment was the first to reach Washington, and was not a moment too soon. The successful march through Baltimore and the saving of the capital from falling into the hands of the enemy has given this regiment a prominent place in the history of the Civil War. Colonel Jones served with this regiment four months, when its term of service having expired, he returned to Massachusetts. He then set about recruiting another regiment, which was commissioned and put into the field as the Twenty-sixth Massachusetts, which preceded General Butler on his New Orleans expedition. Colonel Jones was in different departments of the service nearly three years, and was brevetted Brigadier General. He was elected member of the House of Representatives of the Massachusetts State Legislature for the session of 1865.

After the close of the war he left Massachusetts and went to Binghamton, N. Y., and founded the Jones Scale Works, which, after a growth of a quarter of a century, ranks with the first manufacturing establishments of the country, and "Jones, he pays the freight," is known all over the world. In the fall of 1885 he was elected Lieutenant-Governor of the state of New York. At the end of his term of three years he was re-elected, having a larger number of votes than was ever cast in a contested election for any candidate for official position in any state of the Union. He held this office for six years.

There is one other position which has brought Governor Jones into prominence. It is his connection with the Patrons of Husbandry, commonly known as Grangers. He joined in the very beginning of the order, and has been for more than twenty years an active and influential member thereof.

In conclusion we would say that as a business man and citizen he has been a success, but as a politician a failure; which was the result of an effort on his part to carry business principles into politics, there being no distinction in his mind between business and political morals.

He is well known in all parts of the country as a scale manufacturer. His scales give satisfaction wherever used and win new friends so fast that it is difficult to supply the ever-increasing demand. The Jones Scale Works have been enlarged several times of late years, and the prospects are that it will soon be necessary to again increase the capacity.

GRAIN GROWING IN MEXICO.

Regarding cereal products we are told that Mexico is becoming a wheat growing country, and since the transportation facilities offered by the great American railroad systems, great impetus has been given to the raising of this grain. The area best adapted for its cultivation comprises over 52,000 square miles, over one-third of which could be planted in wheat without serious detriment to the other agricultural interests of the country. The Mexican plan of cultivation makes it possible to take off the land three crops every two years—one crop of wheat and two crops of corn. It is stated that the average yield of wheat per acre is about 20 bushels, and of corn on irrigated lands about 50 bushels and on dry lands 30. We believe these estimates are too high.

The methods of cultivation have as yet been little affected by the progress of the age. The rudest implements—much like those in use thousands of years ago in Egypt—are employed in cultivation and harvesting. But improved farm machinery has been introduced and successfully used in many places, and is gaining ground literally. This goes in from the United States chiefly, and is admitted free of duty. The chief obstructions in the way of its more rapid introduction and adoption are the ignorance and prejudice of the common laborers, the peons or Indians, and the difficulty of getting and fitting repairs.

New York exported 55,825 bags of clover seed during the five months ending with January, against 46,695 bags in the corresponding period of 1890-91.

MANITOBA'S ELEVATOR SYSTEM.

Ten years ago Manitoba was without any elevator system, says the *Commercial of Winnipeg*. Start out with this fact in view, and then glance over the list of elevators below, and we think the reader will find therein genuine cause for astonishment. All the elevators in this long list have been built within the past ten years! This is a fact which speaks more than could be expressed in columns of matter, of the wonderful progress made in the wheat belt of Western Canada, within the past ten years. The wonderful showing made in the erection of all these elevators within a single decade, may be taken as a safe index to the development of the grain growing industry of this portion of Western Canada.

Elevator building in Manitoba commenced in the year 1882. In this year the Ogilvie Milling Company, and D. H. McMillan & Co., erected each an elevator in connection with their flour mills in Winnipeg, and in the same year something was done toward establishing elevators at other provincial points, where towns were growing up along the newly constructed lines of railway. Portage la Prairie, Carberry, Brandon, Manitou and Morden were some of the first points where elevators were erected. Now there are one or more elevators at almost every railway station in the wheat belt, extending from Winnipeg to Moose Jaw, and we think it may be safely said that Manitoba has an elevator system unsurpassed by any other country in the world. The Ogilvie Milling Company has kept up its record as one of the first in the field, and has been adding yearly to its system of elevators.

A good elevator system is a matter of great importance in a country aspiring to be a grain region. It greatly facilitates the rapid handling of grain, and enables it to be shipped in better condition. During the busy season, from 5,000 to 15,000 bushels of grain are often marketed by farmers in a single day, at one point. It would be a very difficult matter to handle this quantity of grain without elevator facilities. Farmers would be obliged to wait a long time to get their grain unloaded, without the assistance of an elevator. The farmer now has simply to drive his horses up an inclined platform at the side of the elevator, where the grain is dumped from the wagon into a large hopper. It is then weighed and conveyed quickly away by the elevating machinery, and deposited in bins, according to quality, care being taken to keep grain of the same quality in the same bins. Where grain is taken in at what are known as flat warehouses (low buildings without elevating appliances), it is much more laborious and a slower job, as the grain has to be carried in by hand and deposited in the different bins. When it comes to loading cars, the elevator also has a great advantage over the warehouse. The grain is simply run through spouts directly into the cars, while from the warehouse it must be lugged out by hand.

There has been a prejudice to some extent among farmers, against elevators, on account of a rule which existed, to the effect that the railways would not receive grain from warehouses at points where there were elevator facilities, though the rule has not been always strictly adhered to. This prejudice has now about died out. The fact of the matter is, Manitoba's wheat crop could not be handled without a good country elevator system. If an attempt were made to handle the crop through warehouses only, there would soon be a complete blockade, and such delay would be caused to the railways that they would not be able to move the crops. Such a state of affairs would be very serious for the farmers, and it is therefore in their interest that the elevator system may be made as perfect as possible.

Country elevators are not intended primarily for the storage of grain, hence their small capacity when compared with the mammoth storage elevators at important terminal and shipping points. The country elevator is intended principally to facilitate the handling of grain from the farmer, and to provide for its convenient transfer to railway cars for shipment. The list given below will show the usual capacity of country elevators to be from 20,000 to 40,000 bushels. Though the storage capacity of a single country elevator is not large, yet in the aggregate they form an important portion of the storage capacity of the country. In case of a heavy rush of grain to market, or a railway blockade and consequent inability to secure cars as fast as required, these country elevators come in very useful for providing temporary storage for grain, which otherwise would have to be held by farmers until it could be handled by the shippers and

railways. The elevators on the list below at Port Arthur, Fort William and Keewatin, are not country elevators. They are, however, a part and parcel of the Manitoba system. The elevators at the two lake ports mentioned are for storage and for the transfer of grain from cars to boats. The Keewatin elevator is for storing and cleaning wheat for the mill there. The Winnipeg elevators are also principally for carrying and cleaning wheat for the mills, though a considerable quantity of grain is taken in direct from farmers at some of the Winnipeg elevators. The largest elevator at Portage la Prairie is in connection with a flour mill, and is therefore partly intended for storing wheat for the mill. The elevator on the Northern Pacific at Emerson is an important cleaning and handling elevator, as considerable grain taken in at other points along the line of railway is put through this elevator for cleaning and making up into large shipping lots before being bonded for shipment through the United States to Atlantic ports. Quite a number of the country elevators have machinery for cleaning grain, but, of course, not on as perfect a scale as in the large storage and handling elevators at terminal and important shipping points.

In most instances Manitoba country elevators are owned by parties or firms who do a milling or grain shipping business, or both, and the elevators have therefore been established for the purpose of facilitating the grain buying business of the respective owners. In some cases, grain is received at these elevators from farmers, for storage, when the farmer wishes to hold his wheat for a while in hope of getting a higher price. This, however, is not done at many elevators. In some instances two or more buyers handle grain through the same country elevator. In the list of elevators given below will be noticed several termed "farmers' elevators." These were mostly erected the past season, and are owned by local companies of farmers. These farmers' elevators have been established mostly on account of a feeling among the farmers of the locality, that it would be an advantage to them to have an elevator of their own, independent of the grain buyers, where they could store their grain, raise money upon the warehouse receipts, if required, and sell it in a lump at a favorable turn of the market, etc. In a few instances farmers have undertaken to ship their own wheat, but not as a rule with a successful result.

The Lake of the Woods Milling Company has a splendid system of country elevators, besides two large storage elevators at its mill at Keewatin. The company built six new elevators this year, and all its elevators have been built since 1889.

The Canadian Pacific Railway has the greatest mileage, and consequently the largest number of elevators are located at stations on the main line and branches of this company. The list below gives the names of stations where elevators have been established, with the names of owners thereof, and the capacity of each elevator in bushels. The letter "a" prefixed to the capacity signifies that the elevator is operated by steam power. Other elevators are worked by horse power, except one small elevator at Brandon, which is operated by a wind mill. Quite a number of new elevators have been erected at Canadian Pacific Railway points during the past season, particularly in Southwestern Manitoba, at new grain buying points established on the newly constructed extensions of the Glenboro and Souris branches. A star prefixed to the name of the owner indicates that the elevator has been erected in 1891. As far as we can learn, thirty-five new elevators have been erected the past year on the Canadian Pacific lines, with a total capacity of 1,112,000 bushels. This does not include the big elevator at Port Arthur, nor flat warehouses. This is a good showing:

Station.	Owner of Elevator.	Capacity.
Port Arthur,	J. G. King,	a325,000
Fort William,	C. F. R. "A,"	a1,250,000
"	" "B,"	a1,250,000
"	" annex to B (bid'g)	a1,250,000
Keewatin,	L. of the W. Milling Co.,	a140,000
Winnipeg,	Ogilvie Milling Co.,	a260,000
"	N. Bawlf,	a70,000
"	Hudson's Bay Co.,	a70,000
"	Stephen Nairn,	40,000
High Bluff,	J. Dilworthy,	a30,000
"	J. A. K. Drummond,	12,000
"	Ogilvie Milling Co.,	12,000
Portage la Prairie,	L. of the W. Milling Co.,	a175,000
"	Farmers' Elevator,	a110,000
"	Ogilvie Milling Co.,	a35,000
McGregor,	*Logan & Crowe,	a25,000
Austin,	*W. Clifford,	a30,000
Carberry,	Lyons Elevator Co.,	a65,000
"	H. Clowe & Co.,	a35,000
"	Manitoba Milling Co.,	a32,000
"	L. of the W. Milling Co.,	30,000
"	Ogilvie Milling Co.,	25,000
Douglas,	*L. of the W. Milling Co.,	35,000
"	Milne & Bousfield,	a30,000

Station.	Owner of Elevator.	Capacity.
Douglas,	T. E. Greenwood,	a25,000
Chater,	T. D. Woodcock,	a25,000
Brandon,	*Parrish & Lindsay,	a70,000
"	Alexander, Kelly & Co.,	a60,000
"	*Stuart & Co.,	a50,000
"	Ogilvie Milling Co.,	a40,000
"	McMillan & Co.,	a40,000
"	Henson,	a15,000
"	Sinclair & Co.,	12,000
Kennay,	Thompson & Sword,	a80,000
Alexander,	McMillan & Co.,	a35,000
"	McKenzie & Co.,	a30,000
"	Ogilvie Milling Co.,	12,000
Griswold,	L. of the W. Milling Co.,	30,000
"	W. Govenlock,	a30,000
"	W. T. Smith,	a27,000
"	Ogilvie Milling Co.,	20,000
Oak Lake,	*Leitch Bros.,	a35,000
"	*Roblin & Armitage,	a39,000
"	Ogilvie Milling Co.,	20,000
Virdeu,	Ogilvie Milling Co.,	a35,000
"	McBean Bros.,	a35,000
"	*Adamson & Co.,	a32,000
"	L. of the W. Milling Co.,	82,000
Elkhorn,	L. of the W. Milling Co.,	85,000
"	H. Crowe & Co.,	a25,000
"	Ogilvie Milling Co.,	14,000
"	Atkinson & Co.,	8,000
Fleming,	S. Pearce,	8,000
Moosomin,	Ogilvie Milling Co.,	a35,000
"	*Farmers' Co. (bid'g)	a40,000
Wolsley,	Wolsley Mill Co.,	a20,000
Indian Head,	W. R. Bell,	a50,000
"	McMillan & Co.,	25,000
"	Canada Farm Co.,	20,000
Regina,	Western Mill Co.,	a25,000
Morris,	Ogilvie Milling Co.,	a40,000
"	G. F. Gaw,	12,000
Rosenfeld,	*L. of the W. Milling Co.,	10,000
"	*Ogilvie Milling Co.,	20,000
Gretna,	Ogilvie Milling Co.,	a30,000
"	McBean Bros.,	a30,000
"	L. of the W. Milling Co.,	17,000
Plum Coulee,	Ogilvie Milling Co.,	a40,000
"	L. of the W. Milling Co.,	20,000
Morden,	Ogilvie Milling Co.,	a35,000
"	McBean Bros.,	a35,000
"	McMillan & Co.,	a20,000
"	Dines and Cleveland,	a20,000
"	*Farmers' Co.,	40,000
Thornhill,	Ogilvie Milling Co.,	25,000
"	L. of the W. Milling Co.,	25,000
Manitou,	R. Ironside,	a45,000
"	Ogilvie Milling Co.,	a40,000
"	McBean Bros.,	a35,000
Pilot Mound,	Ogilvie Co.,	a40,000
"	Chalmers Bros.,	a30,000
"	"	9,000
Crystal City,	Raing & Parr,	a25,000
"	*Farmers' Elevator Co.,	a25,000
Cartwright,	F. Young & Co.,	a25,000
Killarney,	Harrison Bros.,	a30,000
Nings,	Roblin & Armitage,	a25,000
"	*L. of the W. Milling Co.,	20,000
Bolshevik,	*Preston & McKay,	a35,000
"	E. B. Tatchell,	a25,000
"	Geo. Morton,	a26,000
Deloraine,	Ogilvie Milling Co.,	25,000
"	S. P. Clark & Co.,	a30,000
"	C. A. Young,	a30,000
"	Ogilvie Milling Co.,	22,000
Carman,	*Farmers' Elevator Co.,	a60,000
"	Roblin & Armitage,	a35,000
"	L. of the W. Milling Co.,	30,000
Treherne,	R. S. Alexander,	a30,000
Holland,	*H. Crowe & Co.,	a20,000
"	L. of the W. Milling Co.,	20,000
Cypress River,	J. Riley,	a25,000
Glenboro,	Ogilvie Milling Co.,	a40,000
"	R. Logan & Co.,	a25,000
Stockton,	*Reid & Co.,	a20,000
Methven,	*L. of the W. Milling Co.,	30,000
"	*Ogilvie Milling Co.,	20,000
Niverville,	*Dines & Cleveland,	a25,000
Dominion City,	J. Macara,	25,000
"	Geo. Agnew & Co.,	30,000
Emerson,	Waddell & Co.,	30,000
"	W. L. Griffith,	a25,000
"	Ogilvie Milling Co.,	9,000
Beresford,	*D. P. McLaurin,	a3,000
Souris,	*McCulloch & Heriot,	a75,000
"	*Mann & Durham,	a40,000
"	L. of the W. Milling Co.,	30,000
"	McCulloch & Heriot,	a20,000
Menteith,	*A. J. Hughes,	a39,000
Hartney,	*L. of the W. Milling Co.,	35,000
"	*Hammond & L.,	a35,000
"	*Ogilvie Milling Co.,	25,000
Lauder,	*Scott & Scott,	25,000
"	*Ogilvie Milling Co.,	20,000
Napinka,	*Roblin & Armitage,	30,000
Melita,	*L. of the W. Milling Co.,	40,000
"	*Ogilvie Milling Co.,	25,000
Stonewall,	"	20,000
Whitewater,	Geo. Morton,	a20,000

Total elevator capacity on the C. P. R. 8,445,000

In addition to the elevators as given above, there are also a large number of grain warehouses (flat warehouses without elevating machinery) at stations on the Canadian Pacific. The following shows the location, ownership and capacity in bushels of these grain warehouses:

Station.	Owner.	Capacity.
Poplar Point,	Francis Bros.,	4,000
Rumside,	Portage Milling Co.,	3,000
"	Campbell & Green,	2,000
McGregor,	"	4,000
"	H. Crowe & Co.,	4,000
"	Geo. Rogers,	4,000
Sidney,	Dr. Crowe,	8,000
"	Dines & Cleveland,	5,000
"	Roblin & Armitage,	4,000
"	Man Milling and B. Co.,	1,000
"	Dines & Cleveland,	2,500
Sewell,	McKinzie & Co.,	12,000
Brandon,	Thos. Thompson,	10,000
Oak Lake,	Leitch Bros.,	20,000
Elkhorn,	H. M. Power,	4,000
Wapella,	Roblin & Armitage,	4,000
"	Alex Knowles,	2,000
Whitewood,	Macaulay & Higinbottom,	3,000
"	John Street,	3,000
"	Atkinson & Co.,	2,000
Broadview,	Clementson & Painter,	2,400
"	A. G. Thompson,	1,200
Grenfell,	B. P. Richardson,	6,000
"	Shellock & Freeman,	5,000
"	McMillan & Co.,	3,000
Wolsley,	Ogilvie Milling Co.,	12,000
Qu'Appelle,	S. H. Caswell,	20,000
"	McMillan & Co.,	20,000

Station.	Owner.	Capacity.
Qu'Appelle,	G. H. V. Bulges,	4,000
Bolton,	J. B. Hawkes,	1,500
Regina,	J. D. Sibbald & Co.,	10,000
Moose Jaw,	McMillan & Co.,	4,000
"	H. N. Harrison,	3,000
"	E. A. Baker & Co.,	2,000
"	S. P. Clark & Co.,	2,000
Morris,	Ogilvie Co.,	10,000
Rosenfeld,	H. Crowe & Co.,	2,000
Gretna,	J. & J. Livingstone,	10,000
Plum Coulee,	J. & J. Livingstone,	6,000
"	P. Ulrich,	5,000
Morden,	C. P. R.,	8,000
"	Body & Noakes,	3,000
Thornhill,	Leslie & Ironside,	5,000
Manitou,	C. P. R.,	4,000
La Riviere,	N. Bawlf,	3,500
"	R. Ironside,	3,500
"	M. Keating,	2,500
"	P. Fargay,	1,500
Pilot Mound,	Chalmers Bros.,	5,000
"	J. T. Gordon,	4,000
Crystal City,	McBean Bros.,	5,000
Clearwater,	R. Rogers,	16,000
Cartwright,	T. S. Menary,	3,000
"	O. Johnson,	2,000
Holmfild,	J. T. Gordon,	3,000
"	Dines & Cleveland,	3,000
"	Roblin & Armitage,	1,500
Killarney,	T. J. Lawler,	3,000
"	McMillan & Co.,	2,000
Deloraine,	S. P. Clark & Co.,	4,000
"	C. A. Young,	2,000
Treherne,	R. S. Alexander,	5,000
Holland,	N. Bawlf,	2,000
"	Geo. Smart,	2,000
Cypress River,	J. Riley,	3,000
"	A. Atkinson & Co.,	3,000
Glenboro,	R. Logan & Co.,	7,000
Stockton,	Reid & Co.,	7,000
Methven,	Roblin & Armitage,	3,000
Niverville,	Ogilvie Milling Co.,	4,000
"	R. Church,	1,000
Otterburn,	N. F. Carey,	3,000
Emerson,	N. Bawlf,	5,000
Souris,	Hughes & Atkinson,	10,000
Stonewall,	H. McCulloch,	8,000
"	Dines & Cleveland,	4,000

Total warehouse capacity.....389,100

Following is a list of elevators and grain warehouses at stations on the line of the Manitoba & Northwestern Railway. Those prefixed with a "w" before the capacity are warehouses. Others are regular grain elevators. Most elevators have steam power. Where a star is placed before the name of the owner, it indicates that the building was erected the past season. Thus it will be seen that four elevators and seven warehouses have been built along this railway in 1891, which shows good progress in the country tributary to this road:

Station.	Owner.	Capacity.
Macdonald,	Campbell & Green,	12,000
"	N. Bawlf,	w6,000
"	*L. of the W. Milling Co.,	25,000
Gladstone,	P. Broadfoot,	w6,000
"	A. Atkinson & Co.,	w4,000
"	A. G. Williams,	w6,000
"	W. S. Bailey,	w3,000
Midway,	*Campbell & Green,	w3,000
Arden,	A. Atkinson & Co.,	w3,000
"	N. Bawlf,	w1,000
Neepawa,	Moore & McFarlane,	w10,000
"	Beautiful Plains Milling Co.,	60,000
"	Ogilvie Milling Co.,	20,000
"	A. Atkinson & Co.,	w12,000
"	J. J. Hamilton,	15,000
"	R. O'Reilly,	25,000
Franklin,	*Neepawa Farmers' Elevator Co.,	75,000
"	W. S. Sirett,	w7,000
"	A. Atkinson & Co.,	w7,000
"	*Ogilvie Milling Co.,	20,000
Minnedosa,	W. P. Johnstone,	25,000
"	Ogilvie Milling Co.,	30,000
"	James Jermy,	w7,000
"	A. C. Sewell,	w3,000
"	F. & E. Pearson,	w30,000
Rapid City,	G. McCulloch & Co.,	40,000
"	Head & Christie,	w8,000
"	N. Bawlf,	w9,000
"	J. Wilson,	w1,000
"	*Rapid City Farmers' Elevator Co.,	40,000
Basewood,	N. Bawlf,	w3,000
"	*G. Hanna,	w5,000
Newdale,	*G. W. Ray,	w3,000
"	N. Bawlf,	w3,000
"	J. L. Cook,	w1,000
Strathclair,	Campbell & Green,	w3,000
"	W. B. Moore,	13,000
Shoal Lake,	Shoal Lake Milling Co.,	25,000
"	A. Marshall,	w10,000
Solsgrith,	R. Nelson,	w3,000
Birtie,	N. Bawlf,	w3,000
"	Arrow Milling Co.,	w10,000
Foxwarren,	T. Almack,	w3,000
Binscarth,	Roblin & Armitage,	w3,000
"	N. Bawlf,	w5,000
Millwood,	Mitchell & Bucknall,	w10,000
"	"	w4,000
Russell,	*Campbell & Green,	w5,000
"	J. G. Boulton,	w5,000
"	*J. D. Kippen,	w6,000
"	*M. Simpson,	w8,000
Saltcoats,	N. Bawlf,	w3,000
Yorkton,	*Pollock,	w3,000

Total elevator and warehouse capacity.....654,000

The following are grain elevators and warehouses at stations on the line of the Northern Pacific Railway in Manitoba. Warehouses are marked with a "w," others are elevators. Elevators having steam power have an "a" prefixed to the capacity; other elevators are operated by horse power:

Station.	Owner.	Capacity.
Portage in Prairie,	Martin, Mitchell & Co.,	430,000
Winnipeg,	Hudson's Bay Co.,	470,000
"	McMillan & Co.,	40,000
Union Point,	Martin, Mitchell & Co.,	w2,500
Morris,	"	30,000
St. Jean,	"	330,000
Leteller,	"	12,000
"	"	15,000
Emerson,	Crowe & Co.,	15,000
"	Martin, Mitchell & Co.,	a70,000

Station.	Owner.	Capacity.
Roland,	Martin, Mitchell & Co.,	30,000
Miami,	"	30,000
Somerset,	"	w2,500
Swan Lake,	"	w2,500
Greenway,	"	30,000
Balder,	Manitoba Elevator Co.,	40,000
Belmont,	Martin, Mitchell & Co.,	30,000
Hilton,	Manitoba Elevator Co.,	40,000
Wawanesa,	"	40,000
"	"	30,000
Routhwaite,	Martin, Mitchell & Co.,	30,000
Martinville,	"	30,000
Elliotts,	"	12,000
"	"	warehouse

Total elevator and warehouse capacity.....615,500

The Northern Pacific Railroad was first opened in Manitoba in the fall of 1888. Only the portion between Winnipeg and the boundary was at that time completed. The road was extended westward from Morris and Winnipeg the following year. All the elevators along the lines of the Northern Pacific, in Manitoba, have, therefore, been built since the fall of 1888, but mostly in the seasons of 1889 and 1890. No new elevators were built on this road during 1891.

† This elevator also appears in the list of elevators on the Canadian Pacific, being reached by a switch from the latter road.

‡ This elevator is located on the Winnipeg transfer railway.

From the above it will be seen that the total elevator capacity of our prairie wheat country, including terminal elevators at the two Lake Superior ports, is as follows:

	Bushels.
Elevators on Canadian Pacific.....	8,445,000
Warehouses on Canadian Pacific.....	389,100
Total storage on C. P. R.....	8,834,100
Elevators on Manitoba Northwestern.....	425,000
Warehouses on Manitoba Northwestern.....	229,000
Total capacity on M. & N. R.....	654,000
Elevators on Northern Pacific.....	600,000
Warehouses on Northern Pacific.....	7,500
Total on N. P. R.....	616,500
Grand total on all roads.....	10,104,100

This shows an average of 1,000,000 bushels' capacity for every year since elevator construction began in this country. The season of 1891 shows a record of thirty-five new country elevators built on the Canadian Pacific, with an aggregate capacity of 1,112,000 bushels, and four new elevators on the Manitoba Northwestern Railway, with an aggregate capacity of 160,000 bushels, beside the new annex elevator at Fort William, with a capacity of 1,250,000, making the grand total of 2,522,000 bushels' capacity added during the year 1891. This does not include new flat warehouses erected during 1891, which, if added, would make a considerable addition to the new grain storage for the year.

SWEEP POWER.



—Courtesy Farm Implement News.

Our exports of broom corn last year were valued at \$267,814, against \$110,997 the year before. The increased value is more apparent in December, being \$61,174, against \$10,765 in December of the year before.

The imports of flaxseed in December were 19,633 bushels, against none in the preceding December; and for the year 758,756 bushels, valued at \$865,409, against 2,576,284 bushels, valued at \$2,939,858 for the year 1890.

DEADHEAD ELEVATORS.

It is proposed to call a state waterway convention to meet at Albany March 2. The principal object appears to be to bring to bear a pressure against the continuous extortion alleged to be practiced by the elevator combines of New York and Buffalo. In the latter city there are no less than twenty-five grain elevators which are closed under the operations of a pool to enable the remaining ones to charge high rates for their services, and it is claimed that a dividend of 26½ per cent. was declared for last year on all the houses, including the twenty-five, in which not a single bushel of grain was handled. The way in which this is accomplished may perhaps be inferred from the fact that under the free competition of several years ago 1,000 bushels of grain was passed through the elevators at Buffalo and New York City for \$2.50 in each case, while now the charge for that quantity is \$10.75 at Buffalo and \$11.25 at New York, though the work is now performed more cheaply by the use of steam shovels than when the low rate contented the proprietors. If the old charge were a reasonable one at the time it ought to be enough now, and if so the total extortion at both ports over and above free competition rates is \$17 per 1,000 bushels. Anybody who knows how much of either kind of grain forms an average boat load on the canal or vessel cargo on lake or ocean can figure out for himself the amount of toll that is thus paid to a combination formed for the express purpose of milking the trade, and which is doing so contrary to law.

It is also claimed that besides this unmerciful exaction the Erie-Hudson commerce has suffered a loss of many millions of dollars by the railroad companies which control the elevator pool at Buffalo. Last season during the rush of grain at that point they kept idle about twenty-five storage, tower and floating elevators simply because they had no rail connections, though every one of those elevators was built expressly for transferring grain from vessels to canalboats. With the railroad companies holding this advantage over the Erie-Hudson waterway they can render \$200,000,000 worth of property useless at their own sweet will, and place thousands of canal craft in the same predicament.

The remedy proposed by the movers for the call is that the legislature shall provide for the erection of state grain elevators at New York and Buffalo. At the latter port the state owns the Erie basin of 20 acres, and New York harbor is as free for state elevators as it is for railroad companies. It is open to question if the remedy proposed might not soon prove to be as bad as the disease, and it may not be the one indorsed by the convention. But if the proceedings at that gathering shall result in bringing prominently before the eyes of the people the character and extent of the extortion practiced it may result in great benefit. Such abuses as are charged could hardly be continued long if the people of the state were really aware of the fact and understood its enormity.—Chicago Tribune.

MISSOURI GRAIN INSPECTION.

The report for 1891 of Chief Grain Inspector Joseph A. Shea says that during the year only forty-seven appeals were taken on the inspections of the department, and of these only thirteen changes were made.

The receipts during the year averaged per car of wheat, 622 bushels; corn, 580 bushels; oats, 1,040 bushels; rye, 467 bushels; barley, 700 bushels.

The receipts and disbursements of the department for the year are stated as follows: Cash balance Dec. 31, 1890, \$2,965.08; receipts during the year, \$50,046.42; disbursements on expense account, \$6,009.69; disbursements on account of salaries, \$37,327.98; cash balance Dec. 31, 1891, \$6,708.75.

The total of wheat inspected upon arrival was 25,656,909 bushels, of which 16,490,299 bushels were inspected at St. Louis, 8,422,698 bushels at Kansas City, and 743,912 bushels at St. Joseph.

Corn inspected aggregated 12,402,817 bushels, of which 5,459,097 bushels were at St. Louis, 4,959,000 at Kansas City, and 1,987,720 at St. Joseph.

Oats inspected, 11,210,955 bushels, of which 7,335,915 were at St. Louis, 3,443,440 at Kansas City, and 431,600 at St. Joseph.

Rye, 700,979 bushels, divided as follows: St. Louis, 110,691; Kansas City, 469,802; St. Joseph, 120,486.

DAY AUTOMATIC GRAIN WEIGHER.

The Day Automatic Grain Weigher, illustrated herewith, was patented July 1, 1890, and is specially adapted for use in grain elevators, breweries, flour mills and malt houses.

The patentee, F. W. Day of Shopiere, Wis., claims that it will accurately weigh and register all kinds of grain, corn, flour and cotton seed, and deliver the same in sacks or spouts, as the case may require. It is entirely built of iron, is perfectly automatic in all its movements, and does not require any attention whatever. The machine is entirely inclosed, therefore the grain is not exposed to dust or dirt. Its operation is as follows: The grain is conveyed to the top of the weigher and falls into the lower receiver or hopper, and when the weight (which is set at the desired number of pounds) is overbalanced the hopper drops and throws the cam-wheel into gear, which closes the upper hopper and opens the lower one, which discharges the contents.

GRAIN BLOCKADE AT BUFFALO.

A prominent lake vessel owner writing to the *Marine Record* gives the following very interesting reminiscence of the grain blockade at Buffalo, which spread to all the Central and Western Traffic Association lines:

The grain blockade was unprecedented in the annals of lake navigation and unworthy of Buffalo. The local marine men of that port, as well as all other leading vessel owners of the lakes, were outspoken against the railroads whose western terminals were at Buffalo, and who had "bit off more than they could chew" in an endeavor to gobble all the grain and to cheat the canal out of its equitable share.

Had the canal been given its proportion, the railroads would have been relieved from stress and the vessels from demurrage and loss. The railroads in the emergency did all they could, but that did not excuse them or lessen their liability for demurrage and expense to the vessels, for the railroads had really created that condition of things which brought about such protracted delays and losses to the shipping. Then to be told that they would not pay a cent, that they "wer doing all they could" was too much.

It was not encouraging to arrive at Buffalo with a cargo of grain and find thirty-two vessels ahead of you waiting to unload at the same elevator, especially while intending to make another trip with your vessel. Such outrageous predicaments led to the use of much money to get unloaded out of turn, and some of the elevators, I am sorry to say, were "in it," so to speak.

The situation as it was experienced can best be explained by taking a representative case, that of a prominent vessel owner, who went to Buffalo, as so many others did, to assist his captain and hustle the unloading of his vessel. His vessel was to make another trip, her freight was engaged, and he went down expecting to "move heaven and earth" to get her unloaded. But heaven and earth would not move to any great extent. Mr. Hustler, as we shall call him, arrived in Buffalo in advance of the arrival of his boat, to "get things ready." He approached his consignee, and asked where she would be assigned. "I must get her off at once," said he, "as she has another trip to make."

"When did your boat get in?" said the consignee.

"Oh, she has not arrived yet. She will be here tomorrow."

"Jerusalem! do you expect your boat to be unloaded before she arrives, when we have 200 vessels in port waiting for elevators?"

"I know it is impossible to unload my boat before she arrives, but I wanted to tell the tugs where to tow her, to save an extra tow bill."

"You will do well if you get inside the harbor with her," said the consignee, "stop her anywhere; don't stop on tow bills; you will get cured of that before you are here a week. When your boat arrives I feel quite sure I can assign her to an elevator inside of two or three days, to await her turn for my lot of wheat, which I believe is the largest consignment your boat has aboard."

Mr. Hustler's spirit sank "full fathom five into despond," and he walked out.

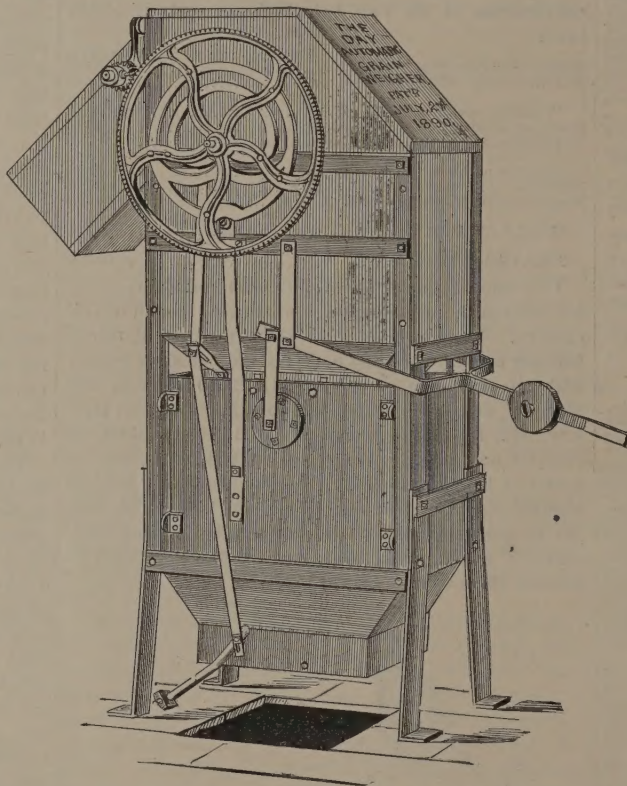
In due course of time the boat arrived. Mr. Hustler

reported her arrival to his consignees, for there were three. He had willingly agreed to three consignments at Duluth, with the agreement that the boat should not be loaded at more than four houses.

The largest consignment was consigned to the great Bison Elevator, where Mr. Hustler found only thirty-one vessels ahead of him, with an uncertain number of that house's own boats to unload as they arrived without awaiting their turns.

The next largest lot was assigned to the Gould Elevator, where were already fifteen vessels in waiting.

There was a measly lot of 87 bushels consigned to Mr. Small Potatoes. Mr. Hustler thought he would like to get this grain out first. Mr. Small Potatoes received him pleasantly. He is nothing if not pleasant. "It is a kind of a way he has," as Artemus Ward used to say. He said he was anxious to get this grain unloaded before the harbor froze up, as it might have to be held over and feared the banks would not carry it for him. He at once assigned the boat to a small one-leg house, and said she would be unloaded at once. On the way there the boat got stuck in a blockade of vessels. She afterward got aground, and three tugs failed to pull her off until the wind changed and raised the water in the harbor. She was three days getting rid of Mr. Small Potatoes.



THE DAY AUTOMATIC GRAIN WEIGHER.

toes' wheat. The lake freight on it was \$4.35. The towing to the elevator was \$85.

Mr. Hustler now carefully went through the list of vessels ahead at the Gould house. He found among them a large vessel whose owner was not ambitious to send his boat out again. Five hundred dollars was paid him for an exchange of places in the procession, by which Mr. Hustler got rid of another lot inside of two days, and congratulated himself that he was about as smart as they make them.

The boss of the Great Bison was next interviewed.

"There are twenty-six vessels still ahead of you, and I see no chance for immediate discharge," said he.

"But I must get her out in some way," said Mr. Hustler.

"You will have to take your turn at the elevator," said the boss. "No boats get special advantages here—except our own." (This last was said in a low voice.) "You must not be in a hurry. Why, some boats have been here a week now, and will have to wait a week longer. The captains say, as you do, that their expenses are enormous, and that they are losing the chance of making other trips. But it is not our fault. We are doing all we can."

"But I have already chartered my boat for another trip, and am obliged to make it," said Mr. Hustler.

"If you can get any other house to take it," said the boss, "you can do so, provided you pay switching charges to get the cars back on our own tracks. This charge is \$1.10 per car."

Mr. Hustler's spirits rose. He readily agreed to this, and left at once to find, if possible, an elevator that would receive it. He soon discovered a large, imposing elevator which had room, and would receive it if he could furnish insurance on the grain. Several hours' lively hustling and telegraphing failed to find any companies who would take any further insurance in that house.

Mr. Hustler found two elevators that were empty. His risen hopes were soon blasted, however. These elevators were "laid up" last spring by the elevator association, as there were too many to be run profitably. A simple resolution could have put these in operation, and much relieved the vessels in the harbor; but that would accommodate somebody. An elevator was at length found that had some room belonging to a consignee who had boats to arrive. "But this room," the boss said, "could not be given to any other boats."

Mr. Hustler had been delayed until he was wild.

"Do you not know," said he, "that my boat is the great steamship Blohardic? You have probably heard of her."

"Yes, I think I have seen her name in the papers."

"Oh, yes," said Mr. Hustler, "we have frequently had complimentary notes of her. When she makes a quick trip or carries an unusual large load, somehow or other it gets into the papers. And then she is owned by the great house of A. Moneymaker & Co., and must not be detained."

"I don't care a damn what boat she is, or who owns her. If I unload her she will have to take her turn. A poor man's vessel has an equal chance here."

Mr. Hustler was not daunted, but tried a new tack. "I would be willing to pay very liberally to have my boat unloaded at once, and as the weather is bad and against the down fleet, you can make more room before these boats arrive."

For the first time the hard heart of the boss softened and became more interested.

"What would you be willing to pay," said he, "if I put a leg into you in the morning?"

"It will be worth \$500 to me, and I will count it out at once if you will agree to do it."

The boss was quite satisfied, and the money was paid, after which Mr. Hustler returned to his hotel, quite satisfied with himself and his day's business.

The following morning he went up to the elevator expecting to find his boat nearly discharged. What was his consternation when he saw another boat unloading. It was the steamer Louseba.

"I see it all," said Mr. Hustler. "That danged Mr. Slycuss, who manages her, has overbid me. He has seen me and gone one or two better, and that low-lived elevator boss has my \$500. I wish I had taken him to the theater last night, and even gone home and slept with him, so that foxy Slycuss could not have seen him."

An investigation proved the truth of his surmises. No way remained but for the Blohardic to come in after her, which she did, and was unloaded the following day.

Mr. Hustler on request deposited \$200 to cover switching charges. The boat's tow bills in port were \$332.60. Smaller sums paid to bosses, messengers, including cigars, beer and hotel bill, \$126 54.

Before leaving Buffalo Mr. Hustler drank the health of the Buffalo elevator bosses and the railroad agents, and said, "May they live long enough for me to get even with them."

Chicago received last year 68,166,240 pounds of grass seed, 20,685,354 pounds broomcorn and 192,308 tons hay; compared with 72,068,100 pounds grass seed, 14,524,233 pounds broomcorn and 170,562 tons hay the year before. The shipments last year were 55,148,971 pounds grass seed, 15,750,529 pounds broomcorn and 28,935 tons hay, compared with 59,213,036 pounds grass seed, 15,395,873 pounds broomcorn and 19,378 tons hay in 1890.

It is stated that a strong combination has been formed in Chicago for the purpose of cornering the wheat market and advancing prices. This much-talked-of "bull" movement is based upon the belief that, within the next few months the large shortage in Europe will become so manifest, that prices will move up with a bound. This may all come true, but at the moment there is nothing to justify such a bold assumption.—*Montreal Trade Bulletin*.

BREWERS' GRAINS.

No satisfactory plan of disposing of the immense annual output of brewers' grains in New York has as yet been decided upon, although the subject has for some time occupied the attention of many of the most intelligent of the local brewers.

As has been demonstrated by analysis and proved before a committee of the New York State Senate appointed to investigate the value of grains as cattle feed, properly treated they constitute a most succulent and useful addition to the daily diet of milch and stall-fed cattle, and the present plan of allowing them practically to go to waste during a portion of the year is entirely a mistake.

The best means of effecting their preservation and facilitating their transportation by drying them is now under careful consideration by the brewers of New York and vicinity, and quite a number of propositions have been submitted to them by inventors, mechanics and corporations controlling patents for this purpose. Among the number we may mention particularly the St. Louis Dried Brewers' Grains Company of St. Louis, Mo. Twenty of the machines built according to this company's plans have been in use for several years by the Anheuser-Busch Brewing Association of that city for drying the grains that result from the company's annual output of upward of 600,000 barrels of beer. Other concerns that have brought excellent appliances for drying grains to the attention of the trade are the National Seed Company of Philadelphia, Pa.; the Guillaume Drying Apparatus Company of Chicago, Ill.; the Empire Dairy Feed Company of New York, and a number of others, each one claiming, of course, to offer the best system and build the only perfect machine. Unquestionably some step will shortly be taken to provide a better means of utilizing this useful material than is now available, but before any apparatus or system is adopted the most thorough and practical test should be made of its merits, so that future trouble, annoyance and expense may be avoided. Considering the magnitude of the business involved, no responsible concern would hesitate to further, by all possible means, such an investigation.—*Brewers' Journal*.

LEASED TWO LARGE ELEVATORS.

William P. Harvey & Co., a commission firm at No. 6 Sherman street, Chicago, have purchased the lease of the two large grain elevators owned by the Illinois Central Railroad and located at the mouth of the Chicago River. The elevators have been leased from the railroad company and operated as public elevators by E. and C. Buckingham for nearly thirty years. Their lease has now expired, and instead of renewing it they have sold the entire capital stock of \$100,000 to W. P. Harvey & Co., who will continue the business the same as it was under the guidance of the old lessees.

The firm of W. P. Harvey & Co. consists of Mr. Harvey, who lives in Baltimore, and John Hannah, who is in charge of the firm's business in Chicago. They own and operate a line of elevators along the Illinois Central, Chicago & Alton, and "Three I's" Railroads. Until the latest deal they have not been interested in public elevators.

John Hannah was asked about the slip that his firm had so quietly taken. He said that the negotiations dated back more than a month, and that the practical running of the central elevators had been in his hands for several weeks. He said that the business would be conducted along the same lines that it had followed previous to the transfer.

E. Bartholemew said that the term of his lease had expired and that the firm he represented had decided not to continue in the possession of the elevators longer. Consequently they had disposed of the entire capital stock of \$100,000. The whole story of the transfer is set forth in a circular which has been circulated among the firms which have done business with the old company. It reads as follows:

We beg to inform you that after having been connected for nearly thirty years with the grain business of the Illinois Central Railroad Company we have disposed of our interest and stock in the Central Elevator Company of

Chicago to William P. Harvey & Co., and have retired from the management of the Central Elevators.

We desire to thank our friends for the confidence hitherto reposed in us and to cordially recommend our successors.

Yours respectfully,

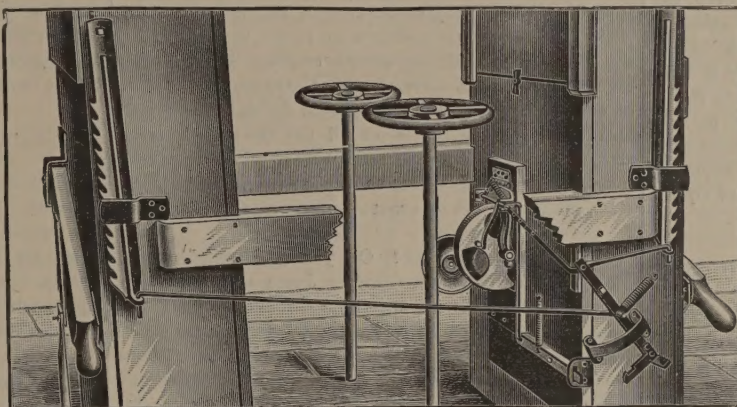
E. BUCKINGHAM,
C. BUCKINGHAM.

The Central Elevators have a capacity for 2,700,000 bushels, and are among the largest and best located grain elevators in Chicago.

THE FIDELITY ANTI-CHOKE AND ELEVATOR ALARM.

With man bad choking spells frequently result in death; with elevator legs they always cause delay, frequently damage, or destroy the belt, and sometimes start fires, which burn up the leg as well as the elevator. Every one who has anything to do with operating an elevator knows that chokes occur frequently, despite the most careful watching by the elevator operatives. The man who has other duties to perform is repeatedly called away to look after the elevators. It is claimed upon reliable authority that 25 per cent. of the fires occurring in buildings where grain elevators are used are caused by chokes in the elevators.

It is claimed that all of these difficulties can be overcome and trouble prevented by using the Fidelity Anti-



THE FIDELITY ANTI-CHOKE AND ELEVATOR ALARM.

Choke and Elevator Alarm illustrated herewith. It is a very simple device, and consists of an iron wheel containing governing weights provided with lugs, which come in contact with a tripping arm when the speed of the elevator slackens. The governor is provided with an adjustable screw, which may be set to trip at any desired speed.

The minute the speed of the elevator cups is reduced this attachment automatically shuts off the feed and rings a bell long and loudly, so that the elevator man, if he is near the building, will be informed of the fact that a choke has occurred which requires his attention. The device can easily be placed upon any elevator leg, and will work on a narrow or a wide belt. The alarm is guaranteed to prevent chokes caused from overloading of bins, irregular motive power or over feed. When equipped with this device elevator legs can be worked to full capacity without fear of choking.

The machines have been used for some time in elevators at Duluth and Minneapolis, and the elevator superintendents are greatly pleased with them and in letters to the makers they praise the machines in unstinted terms. Any information desired can be secured by addressing the Fidelity Anti-Choke and Elevator Alarm Manufacturing Company, 203 Long's Block, Duluth, Minn., or 424 Beery's Block, Minneapolis.

Our imports of rice in December, 1891, were 3,391,945 pounds, against 4,601,920 the preceding December; and for the year 126,352,785 pounds, valued at \$2,710,263, against 66,620,676 pounds, valued at \$1,381,862, for the year 1890. In addition there was imported, duty free, from the Hawaiian Islands in December, 677,700 pounds, against 907,100 pounds in the preceding December; and for the year, 5,228,400 pounds, valued at \$280,930, against 10,787,100 pounds, valued at \$543,407, for the year 1890. Of the duty paid rice we exported 514,353 pounds in December, against 461,269 pounds in the December preceding; and for the year 10,131,739 pounds, valued at \$203,572, against 6,688,079 pounds, valued at \$131,644 for the year 1890.

BILL OF LADING FOR GRAIN BY LAKE.

Unlike the rail carriers the lake carriers have to make good any shortage in shipments of bulk grain, but opposition to this practice is growing strong among them. The *Marine Record* of Cleveland, which is devoted to the interests of lake carriers, says: "The present bill of lading, for grain shipments by lake, is well named and known as a 'cut throat' document inasmuch as it saddles onto the common carrier a responsibility which is inequitable and irregular. The departure made this season where in several instances the vessel was not to be held liable for any deficiency exceeding a certain stipulated amount, was a noteworthy and commendable effort to abolish what custom is fast entailing upon the vessel owner as an iron bound law, viz., 'all deficiency in cargo to be paid for by the carrier, and any excess in the cargo to be paid for to the carrier by the consignee.'

"In the first place a deficiency chargeable to the wrongful acts or neglect of the master and crew is *prima facie* evidence of barratry, yet, no such an accusation is ever lodged against the master or crew, consequently, after a true and faithful performance of the transportation it comes with bad grace from the shipper to make such a charge, and in the abstract is diametrically opposed to equity and justice. Secondly, 'the excess is to be paid for to the carrier by the consignee,' and yet the carrier, as such, has no right or title to justify him in converting the excess to his own use or ownership, so that in either case, we claim that the present form of bill of lading is unjust and inequitable as applied to lake transportation and the bill of lading, taken as a receipt, should bear no further significance when it is proved that the vessel has delivered all that was received by her.

"The clause contained in the 1890 circular, issued by the several traffic associations, gave notice of the adoption of a uniform bill of lading, and in clause 2, it is stated that 'no carrier shall be liable for loss or damage not occurring on its own road,' and it is through the neglect of this feature that vessels are so frequently imposed upon, as indisputable evidence is always at hand to show that bulk has never been broken between the times of departure and arrival, or while the merchandise was in transit. Clause 4 also states, 'No carrier shall be liable for differences in weights or for shrinkage of any grain carried in bulk,' so that with the uniform bill of lading in force the annoying shortages would never obtain.

"Given a consignment of 20,000 bushels of grain from an elevator situated in the interior of a Western state, the vessel is now saddled with the onus of proving that no waste or mistake in measurements will take place until its arrival at an Eastern lake terminal, at least, such would appear to be the only view which can be taken at this time. Elevator No. 1 books 20,000 bushels, and elevator No. 2 or 3 accepts the bill of lading for that amount and reships a quantity said to be equal to the original amount by vessel, whose duty as a common carrier should simply be to deliver all that she receives, and not, as is now the case, vouch for an exact quantity without having direct control and intelligent supervision of the amount shipped.

"It is now two years since a lake steamer under-ran 800 bushels of wheat on a fall trip, and the New York Court of Appeals affirmed the judgment of the lower courts and imposed the full penalty for shortage on the vessel. This, to say the least, unique decision, was rendered in the face of the following judgments extending over a half century of time, a few of which we quote from a brief:

"A bill of lading is never considered conclusive as to the quantity of the cargo shipped and is at most but *prima facie* evidence to charge the master or owner."

"Where a master had paid for a deficiency in cargo it was held that he might have refused payment because the merchandise had never been shipped and that the bill of lading was ineffectual for the reason that the master has no authority to bind the vessel or its owners for the delivery of cargo not actually received on board." "As to the words 'any excess in cargo to be paid for by the consignee to the carrier' the court ruled that under such a clause in a bill of lading, to hold that if there happened to be more cargo than specified in a bill of lading the car-

rier could claim it as his own, and to preclude the consignee from showing any mistake, would violate principles of law and equity.'

"Judge Brown, now on the Supreme Court, has ruled 'a vessel discharges her whole duty to her cargo by delivering in good order all that she has received. A custom to deduct from the freight earned the value of any deficiency between the quantity delivered and that stated in the bill of lading and that the carrier shall not be permitted to show that he delivered all he received is unreasonable and invalid. The master has no power to bind the vessel by an agreement in the bill of lading that the same shall be conclusive as between the shippers and carriers as to the quantity of cargo to be delivered to the consignee.' Again—'Neither the master of a steamboat nor its shipping agent at points on the rivers of the interior where cargo is received and delivered, can, by giving a bill of lading for goods not received for shipment, bind the vessel or its owners, and such bill is void even in the hands of a transferee in good faith and for value.'

"The foregoing decisions strongly advocate the abolishing of the obnoxious shortage clause, nor is there any good reason why a vessel's freight should be held accountable for merchandise which was never shipped—shortages are the rule, and the exceptional cases of excess are generally carried by 'the other fellow.'

"Traffic managers may be certain that all grain shipped in a lake vessel will be honestly discharged, in spite of the erratic figures submitted by weighmasters, even the lake and rail lines cannot afford to place their earnings at the mercy of the several elevators, and much less so can the distinctive vessel owner, whose business it is to protect the earnings of his floating property from the irregularities or speculations of irresponsible parties. Whatever quantity a vessel carries she ought to be paid for without regard to further liabilities and anything more or less than this is against the principles of equity and justice.

OIL FROM CORN TO SUPPLANT LINSEED OIL.

The corn producers of the United States have a new field opened to them, says the *Journal of Chicago*. Information received at the State Department shows that oil made from corn is becoming quite popular with a class of manufacturers in Europe. Consul-General Edwards writes from Berlin that owing to the scarcity of Russian linseed oil, certain manufacturers there have, by the aid of German chemists, discovered the practicability of using oil made from corn as a substitute, and orders have been placed with certain Chicago houses for the manufacture of the oil and its shipment to Europe. A temporary obstacle to the importation of this oil has arisen in the fact that the German Government has placed a higher duty upon it than they expected. The importers supposed that since the oil is to be used for the same purpose as linseed oil, they would not be compelled to pay a higher duty than that placed on linseed oil. The German Government, however, did not see it in that light, and made the duty 25 per cent. greater than that upon linseed oil. This has put a temporary check upon the new industry, but it is expected that a reduction in the tariff rate will be obtained, and if so it is believed that oil from American corn will supplant linseed oil in the markets of Europe, as it is found to be cheaper and far superior in every respect to the linseed oil which has been so largely used in manufactures.

GRAIN TRADE OF PHILADELPHIA.

Philadelphia received in January 4,317,752 bushels corn, 452,645 bushels oats and 89,732 bushels wheat, against 235,370 bushels corn, 298,800 bushels oats and 48,910 bushels wheat in January last year. The exports were 4,198,737 bushels corn, 165,000 bushels oats and 232,281 bushels wheat, in January, against 60,598 bushels corn, no oats and 29,913 bushels wheat in January last year.

On February 1, 633,962 bushels corn, 363,964 bushels oats and 382,621 bushels wheat was in store in Philadelphia elevators, against 75,925 bushels corn, 125,163 bushels oats and 125,883 bushels wheat in store Feb. 1, 1891. The total receipts in January were 4,860,129 bushels, the exports 4,596,018 and the amount in store February 1 was 1,380,547 bushels.

METHODS OF ELEVATOR ACCOUNTANTS.

BY OBSERVER.

I desire to call the attention—the studious attention—of elevator managers and others interested in the grain traffic to an analogy between a supposed case of bank accounting and the actual methods of elevator accounting still in use in a great many elevators. I also desire the gentleman who discovers a flaw in this analogy to rise to his feet in the columns of this journal and point out the same. I am so confident of my grounds in this matter that I have, all uninvited, taken a front seat. If I am wrong, a back seat is all too good for me, and he who will, may have the satisfaction of setting me down hard. Such a bank system as I shall suppose, can, of course, be nowhere found on the face of the earth. Likewise a bank accountant or any other manner of man so stupid as to indorse such a system. Nevertheless this system is in general use—not in banks, but in elevator offices. Please follow me closely and see if this is not so.

Suppose that, instead of the ordinary system of receiving deposits, we count our depositor's money, saying not a word to him at the time as to whether our count agrees with his or not. After this we make an entry of our count on a slate provided for this purpose, when we are ready for the next depositor. And so on. Now after the bank is closed we take our slate, which, as you have seen, contains the only memoranda of our customers' deposits, and from it we post into our books, very carefully, the amounts of each depositor's credits. How do we know this posting is correctly done? Oh we check back, of course. That is, Jones calls from the slate and Smith checks on the books. After all the entries on the slate have been called and Smith has checked them very carefully Jones reaches for his wet sponge, mops off the slate, hangs it up in its accustomed place, and it is ready for next day's business.

Is the slate a good one? Oh, yes—good reliable slate. Moreover everybody who knows Jones and Smith has great confidence in their trustworthiness. Still the egregious stupidity of this system is apparent to all of us. The idea of receiving a depositor's funds without there and then striking a balance with the depositor's figures is absurd, of course. The practice of mopping off the original figures after the books have been posted therefrom and before the depositor's figures are known is no less absurd. Yet precisely this thing is done at a great many elevators, great and small, throughout the land. There are immense depositories (for grain) in Chicago, New York, Toledo, Toronto, Buffalo, which are doing business on exactly this plan. Isn't this true? We shall see. But before we go farther let us dwell for a few moments on this example of condensed stupidity. Suppose that when we come to check up with our depositors we discover a discrepancy. Well, about the first thing we should do would be to try to convince the depositor that he was off. But if the depositor hangs on, we check back to—the original figures or entries? No. The money was counted and balanced against the figures on the slate, and said figures were wiped out after being posted into our books. Our books then contain only a called and checked copy of the original and proved figures. The entry on the slate may have been correct, but where is the evidence of a balance between our books and the slate? A called and checked proof is not a balance. Every bookkeeper in the land knows that figures that have been simply called and checked in the usual way are a long shot from being reliable.

We fellows who have checked ourselves into fighting condition, notwithstanding our systems of balances, know full well that book accounts without balances do not require much of a start to become hopelessly tangled. Weighing a car of grain seems to be such a simple and easy matter when you see one or two cars weighed. Yes, to be sure. So does it seem to be an easy matter to carry over 49,750 from one page to another. But it happens to be almost as easy to write it down 47,950. Turn over the pages of the abstract of grain received in any of our large terminal elevators. Notice column after column of solid figures. Notice also that the clerks in the office in posting these long columns of figures have checked and rechecked, balanced again and again until they know their accounts are correct. Where do they get these long columns of figures? From the elevator weighman. Well, where do the elevator weighmen get them? They copy them from the scale beams. Now then if clerks, experts in handling figures, are not always correct in

copying these same figures, why are we to take it for granted that the class of men usually employed as weighmen can copy these identical figures from dusty scale beams without errors? The long and short of it is they do make errors—the best of them. I know of one elevator company who employed a \$1,500 bookkeeper to do their weighing because they knew where the screw was loose. No doubt the \$1,500 tightened it somewhat, but subsequent experience revealed the fact that the screw was still loose.

But let us return to the our analogy. In the left hand column below we will summarize the loose points of our supposed banking system; in the right hand column the loose points of a system actually in use at a great many elevators. If the analogy is not perfect I am unable to see why, and I shall be specially grateful to any readers who may help me to see the errors thereof:

AT THE BANK.

The teller is allowed to count the deposit without reference to the depositor's figures—the result of the count being final.

Supposing the money to have been correctly counted and the amount thereof correctly entered on the slate, after the package has been broken and distributed the slate entry is the only entry of the money received.

When the figures on the slate have been posted into the books and the slate wiped off, the book entry is only a copy of the proved figures by balance which were on the slate.

In case of a difference with the depositor, the teller can only check back to a copy of the balanced entry on the slate.

With the result, of course, of finding his figures correct.

A bluish condition of the atmosphere.

What's the remedy? Simply a method of preserving proof of the original and balanced entry. In other words, a system for the elevators analogous to the actual system at the banks, i. e., a double or treble entry of the proved figures on the beams.

Another suggestion is that the weighman shall have under his nose the shipper's figures for the car weighed, and if there is a considerable difference, the car to be set aside and weighed under the supervision of a committee, the grain to pay switching and other reasonable charges in case the shipper's figures are off. This is done with grades, why not with weights?

WHITE AND BLACK OATS.

The difference between these oats is only in the husk, and the kernel has precisely the same composition in both kinds. The color of the husk is not a specific variation, but merely due to the original difference between the two varieties of *Avena strigosa*, or bristle-pointed oats, to which species the black oats belongs. Both these varieties have been cultivated in Scotland for many centuries, although the black kind is commonly called the Tartarian oats. The variation in color is not fixed, as some varieties appear to be partly of both colors, and no kind is completely black. The value of this grain consists in the size and weight of the kernel, which varies greatly in different climates, being larger and heavier where the weather is cool and damp and the growing season is the longest.

AT THE GRAIN ELEVATOR.

The weighman is allowed to weigh the grain without reference to the shipper's figures, the result of his weighing being final.

Supposing the grain to have been correctly weighed and the amount thereof correctly shown on the scale beams, after the grain has been unloaded and bulked with other grain the figures indicated on the beams are the only entry of the grain received.

When the figures on the beam have been posted into the weighman's tally book and the scale changed for the next car, the book entry is only a copy of the proved figures by balance, which were indicated by the poises on the scale beams.

In case of a difference with the shipper the grain clerk can only check back to a copy of the balanced entry on the scale beams.

With the result, of course, of finding his figures correct.

Ditto, ditto, ditto.

MANITOBA WHEAT TRADE.

Quite a number of buyers have been taken off country markets, as deliveries were so light that it did not pay to keep men out. No doubt some farmers who have threshed are holding for higher prices, but dealers think that deliveries will not be large again until threshing becomes general. This brings us again to the condition of grain in stack. Undoubtedly the bulk of the grain in stack is not in condition to thresh, on account of snow and ice in sheaves. Of the wheat coming in at country points, a considerable quantity is damp from threshing in this condition. Damp grain of course cannot be handled at any price, and buyers are obliged to refuse it. It is just difficult to say what should be done with wheat in stack. By exercising great care and removing the outer row of sheaves to be threshed separately, the rest of the stack might be threshed in a marketable condition.

If the wheat cannot be turned out in a dry state it would be better to allow it to remain in stack even until summer, as damp grain would be worse than useless to dealers. Shippers are having a great deal of trouble with smut, which is very prevalent. Smutty grain, when threshed a little damp, is in very bad shape, as the smut balls are broken in threshing, whereas if dry a good deal would be blown out. Shippers find it increasingly difficult to dispose of low grade stuff on account of smut and other defects peculiar to this crop. Receivers in foreign markets, where quantities of low grade stuff are held, are doing a good deal of grumbling, and the outlook for low grade and damaged qualities is for slower sale at lower prices.—*Winnipeg Commercial*.

IMPROVED CHAIN ELEVATOR.

A patent for improvements in endless chain elevators was recently issued to Mr. Benjamin Arnold of East Greenwich.

These improvements relate to that class of elevators called "endless chain" elevators, using endless chains with buckets for the purpose of raising coal, grain, sand and other commodities, and is intended in this case for use in transferring such merchandise from one vessel to another, or to cars, or building. It is necessary in elevators of this class, when used for unloading vessels, to provide for the difference in the height of the vessel with regard to the elevator and its motive power, caused by the rise and fall of the tide, and the change in the level of the coal, grain, etc., to be raised, as the unloading of the vessel progresses.

The main object of the improvements is to make provision for these changes in such a manner as to dispense with a large portion of the weight necessary to be raised and handled in the usual form of this class of elevators in accommodating them to these changes in position. It is also designed to simplify the construction and lessen the power required to operate the elevator by avoiding the raising of the coal, grain, etc., above a certain fixed point, whatever the depth may be from which it is taken to be elevated.

In endless chain elevators of the usual construction, the whole weight of the chains and buckets is added to that of the frames carrying them, and this gross weight has to be raised or moved in making changes to accommodate the apparatus to the height of the tide, etc., and to this weight is to be added the weight of coal, etc., in the buckets when the changes occur while unloading a vessel, as they usually do, making a weight of from twelve to fifteen tons in some cases to be handled; but in this elevator the weight of the greater part of the chains, buckets, and all the load in the buckets, is supported by the wheels on the stationary frame, leaving only the weight of the movable frame, which can be made much lighter as it has less to support, and the weight of less than one-half of the chains and empty buckets, which is a decrease of over one-half the weight to be raised and handled in keeping the lower end of the elevator at the proper height. The point of delivery of the load raised is always the same, likewise the place for the application of power to operate the elevator, which makes the apparatus much simpler and less expensive to construct, and requires much less power to operate.

The slack that would be produced in the bucket chains at the lower end by the raising of the movable frame or leg, is taken up, and the chains kept properly taut by pulleys attached to the back of the leg, over which the chains pass. These pulleys rise in bights of the chains formed between the lower end of the leg and the wheels that

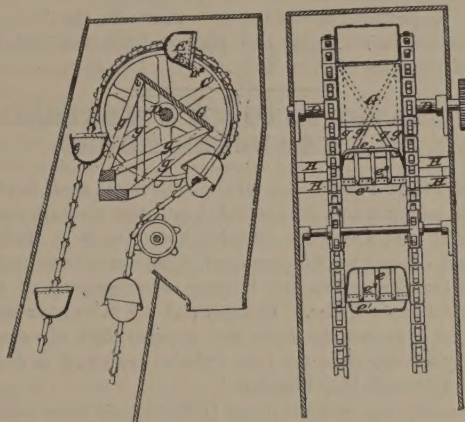
drive the chain, so that what slack is made by the rising of the pulleys in the bights of the chains at the lower end of the leg, is taken up by the pulleys in the upper bight, and vice versa when the leg is lowered. Improvements are also made in the mode of delivering the grain from the buckets. The chains and loaded buckets pass up over the pulleys on the top of the stationary frame of the elevator, then down under a second set of pulleys placed just back of the front ones, which reverses the buckets and discharges the grain into a chute below; then the chain and empty buckets pass up over a back set of pulleys and down to the driving wheels.

There is ample room between the ascending chains with loaded buckets, and the descending chains with empty ones for the chute, and it can be carried close up to the pulleys so as to reduce the fall of the grain to less than two feet, and entirely avoid the ten or twelve feet extra fall of the other elevators, when the frame or leg is raised, and the consequent breakage resulting therefrom.—*Rhode Island Country Journal*.

ELEVATING APPARATUS.

Alexander Miller of New York City has been granted a patent for the elevating apparatus illustrated herewith and has assigned it to Brown & Miller of Jersey City, N. J.

His claim is for the combination of an endless belt conveyor, supporting wheels over which the elevator belt



ELEVATING APPARATUS.

passes, a discharge spout beneath one side of the supporting wheels and a series of buckets secured to the belt and provided with flexible pockets.

The apparatus is provided with guide wheels for throwing the belt to one side of the discharge spout and an inclined stationary shield *G*, located between the belt-supporting wheels above their centers *D*, and below the path traversed by the elevator buckets, so that when the elevator is partially tilted, as is shown by *E*, the grain instead of falling back down the elevator leg, will fall upon the shield and be directed into the discharge spout. It is a very simple device and its advantages can readily be appreciated by elevator men.

ELEVATOR WEIGHTS AT BUFFALO.

Junius S. Smith, Merchants' Exchange weighmaster in his annual report for 1891, gives the total receipts of grain and flaxseed by lake as 135,315,510 bushels. The total receipts at Buffalo from 1872 to 1891 (inclusive) amounted to 1,415,707,761 bushels of grain of all kinds, including flaxseed, and at the rate of shortage at the time of the adoption of the present system in 1872, as compared with the present rate of 1891, the saving to grain carriers would amount on the total receipts to 1,105,667 bushels, and fully demonstrates the value and efficiency of the methods adopted. Mr. Smith reports that all elevator scales, both receiving and delivering, have been carefully tested with standard weights—some of them repeatedly—and checks kept on the work at and from other ports. Errors and discrepancies amounting to several thousand bushels have been corrected, and the probabilities of error or defect reduced to a very low point; and yet he says: "There are many owners or masters of craft receiving the benefit of the care, labor and expense involved in this work who do not employ us because they can get the mere tallying done at a much lower price. They are willing to take advantage of my work without any cost to themselves."—*Marine Record*.

DEVELOPMENT OF MANITOBA'S GRAIN TRADE.

In his annual address before the Winnipeg Grain Exchange President F. W. Thompson said: It is satisfactory to note that the facilities for handling grain in Manitoba and the Northwest Territories keep pace with production. Probably no other country enjoys more prompt erection of elevators. Whenever a point on a line of railway presents a sufficient quantity of grain tributary for a market, such buildings are immediately erected, thus affording an easy and equitable market for our farmers. Nothing is better calculated to assist in the prompt development of this country than the extension of a good elevator system. It is open to any person to erect an elevator upon exactly the same terms as those now built, so that the widest possible scope is afforded for competition on our markets; no one company or individual enjoys the slightest advantage over another in this respect. The increase of the elevator capacity this year over last at Fort William and West is stated to be 2,698,800. The combined storage capacity of Manitoba and the Northwest Territories, including Fort William, Keewatin and Winnipeg, is now 10,326,800. The various buildings comprise steam and sweep power elevators, and flat warehouses, suited to the requirements of each district. The daily milling capacity of Manitoba, the Territories and Keewatin increased during the year by 700 barrels, and the daily capacity is now 7,440 barrels.

The experience of the trade in the transaction of export business this season, suggests the need of the erection of a large elevator at some central point in the Province, probably Winnipeg, as a means of sorting up grades, to fix the requirements of the export trade. While we all know that as a rule the frequent handling of grain, resulting in additional changes, is not desirable, the peculiarities of our crops in some seasons renders some such means of sorting grades, for the convenience and successful handling of export business, a positive necessity. Just what steps will be necessary to test the practicability of this scheme is a matter for your consideration.

NORTHERN LIMIT OF WHEAT CULTURE.

The *Winnipeg Commercial* in replying to a writer who thinks the Western limit of successful wheat culture may be placed at 100 miles west of Brandon, or 233 miles west of Winnipeg, says: That this year the wheat crop of Prince Albert, 600 miles northwest of Winnipeg, has been a decided success. Some frost was experienced before all the wheat was cut, but it was so light as to do practically no damage, the frost being perceptible only in a few low spots. The frost was more severely felt in some sections of Southern Manitoba, and even as far south as points in South Dakota, than in the northern settlement named. Edmonton is another northerly point where the crops have proved a decided success this year. Edmonton lies toward the western end of the great Saskatchewan Valley, while Prince Albert occupies rather a central position in this rich valley. Wheat was all cut at Edmonton by the first of September, and was free from frost damage. All crops there have produced an enormous yield this year. This settlement is 1,032 miles northwest from Winnipeg.

It is safe to assume that the northern limit of wheat culture will be found ultimately far beyond the North Saskatchewan Valley. Some information has come to hand which reports the successful cultivation of wheat by a Church of England missionary at Peace River, some hundreds of miles north of Edmonton. In this far Northern region Rev. Geo. Brick grew wheat and barley last year very successfully.

Our wheat exports to British North America were only 137 bushels last December, against 8,771 bushels in December, 1890; but during the year 4,310,347 bushels, worth \$4,291,187, were exported, against 1,998,979 bushels, worth \$1,911,469, during 1890.

Oregon exported to Europe during the cereal year ending July 31, 1891, 2,951,134 centals wheat and 361,300 barrels of flour in 81 vessels which sailed from the Columbia River. During the preceding cereal year 1,752,879 centals wheat and 491,135 barrels flour were shipped from the Columbia River to foreign markets, including China and Japan.

COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

WILL BUILD ELEVATOR.

Editor American Elevator and Grain Trade:—I contemplate building a grain elevator of from 10,000 to 12,000 bushels' capacity, and am looking up information. Inclosed please find \$1 as subscription to the AMERICAN ELEVATOR AND GRAIN TRADE for one year.

Yours truly, J. T. CORKILL.
Kempston, Ill.

CONTEMPLATE BUILDING ELEVATOR.

Editor American Elevator and Grain Trade:—We are now operating two elevators in Mattoon and one here. We now contemplate the building of a new elevator at this place during the present season. We inclose price of subscription to the AMERICAN ELEVATOR AND GRAIN TRADE. While we remain in the grain trade you can count on our subscription. Its pages present many attractive features. These features are all worthy the careful study of grain dealers generally. The discussion of many interesting points that affect the grain trade serves to bring out the best methods of doing business and at the same time assists in emancipating the trade from many pernicious evils.

Yours truly, I. W. SAWIN & Co.
Loxa, Ill.

NEW CHAMBER OF COMMERCE.

Editor American Elevator and Grain Trade:—The Detroit Chamber of Commerce proposes to erect a suitable building in Detroit, which will afford a home for all the commercial organizations in the city. It proposes to set forth properly the advantages of Detroit as a commercial city and as a manufacturing center. It proposes to do all that can be done to bring capital and deserving enterprises together, and to aid in securing suitable sites for new manufacturing plants.

Its exchange rooms should afford ample facilities for the daily meetings of its members, and it should contain market reports from all parts of the world. The business men from all parts of the state, who come frequently to Detroit, should find here comfortable office facilities and a ready means of meeting the business men of Detroit, of all classes and professions. At this time we have a total of 360 members and a pledge of \$64,850 toward the building fund. The entire amount of stock subscribed for by the members is to be invested in the site and building.

GEO. H. BARBOUR, President,
A. A. BOUTELL, Secretary.
Detroit, Mich.

THE ERIE CANAL.

Editor American Elevator and Grain Trade:—Every transportation route is governed by a board of directors, just so the Erie Canal has a board of directors. The board consists of the Governor, Lieutenant-Governor, thirty-two Senators and one hundred and twenty-eight Assemblymen. In justice to the board I will state that they were instrumental in making the state canals free waterways, and have wisely appropriated moneys to lengthen locks and make other needed improvements.

Four years ago the board enacted a law to restrict the murderous elevator charges on canal grain, but the law has never been complied with. In fact, the charges in Buffalo are an eighth of one cent a bushel more since the law was enacted than they were previous to the law, and the board has been often notified of that fact. But all the good acts done by past canal directors have been nullified or counteracted by their non-action on important measures brought before them.

The directors knew that the aggregate charges for a direct transfer of canal grain was \$28.75 per 1,000 bushels. They also knew that this double toll on canal commerce is dumped into the vaults of the railroads, grain elevator, combines of New York and Buffalo. Thus the directors have in effect said, that if the Erie Canal cannot survive and give to its railroad competitors one and

one-half cents a bushel on all grain shipped by the canal, let it be abandoned.

The directors also knew that the wharfage rings in the cities of New York and Brooklyn were extorting three to four million dollars annually from the state's commerce, while the wharves are free to ships at Boston, and no charge is made to ships for wharfage at the railroad elevators at Philadelphia, Baltimore or Newport News. However, our canal directors have in effect, said that if the Erie Canal cannot stand that item of three or four million dollars let it be abandoned.

Several years ago Senator Arkell introduced a resolution to look after the notorious water thieves along the state canals, but for some unaccountable reason, this most righteous measure was instantly smothered; thus again our Board of Canal Directors in effect said, if the Erie boatmen cannot run their boats through mud and over stones let the canals be abandoned. In view of the facts herein stated, it is marvelous that the Erie Canal has survived as long as it has.

The Erie Canal has never been worked to half its capacity and never can be until its terminal charges are restricted within reason and the water thieves are all exterminated.

The action of the railroad companies who have determined to slaughter the Erie Canal is too bold to be passed unnoticed. They hold a two-way purchase and they utilize both of them to the utmost extent. One is to cripple the canal by excessive elevator charges, and the other and most favorite scheme is to double rail rates as soon as the Erie Canal is closed.

Respectfully submitted by CAPT. M. DE PUY,
President of the Canal and Harbor Protection Union
of the State of New York.

INITIATED INTO THE MYSTERIES OF A TRANSFER HOUSE.

Mr. Riley Pratt knows all about elevators now, having been baptized and duly initiated into the mysteries connected with a real live transfer house, such as Buffalo boasts of—not the Chicago kind, with which he is probably familiar, writes the Buffalo correspondent of the *United States Miller*. It happened all in an hour on a bright day when the creek was jammed full of vessels. Riley wanted to see the jam and also expressed a desire to go through City Elevator A.

In company with his friend O'Brien, they were piloted through the first door all right, but ten feet inside it was dark as a pocket. Superintendent Prouty led the way, O'Brien next, and Pratt followed, stepping high as a turkey in wheat stubble. As they neared the first conveyor the superintendent, in his usual curt manner, called out, "Step high and keep to the left." The next second Riley was being conveyed along on a canvas belt at the rate of forty miles an hour, having fallen through the bridge. Luckily for Pratt the big superintendent is an active, strong man, for no sooner did he hear the sound of a falling body than he knew what had happened, and starting on a keen jump he caught the elegant form of Riley just at the edge of the pit into which he would have been dashed if Prouty's arm or the seat of Pratt's pants had given out—like so much corn.

Riley was a sight to behold when brought out into the light for examination. "Is this the Primrose of the Exchange I walked down with?" asked O'Brien. "Damn you, didn't I tell you to keep to the left and step high?" thundered the superintendent. Pratt paused, his eyes rolled, his appearance betokened murder! But he paused again, and to this second of cool contemplation the two gentlemen undoubtedly owe their lives, for instead of the bursting of a mighty storm at these cruel taunts, the poor dust-begrimed grain merchant meekly remarked to himself: "I did as I was told, stepped high and kept to the left. Trolley cars run fast, conveyors run fast; I must be slow." It took an hour to get the dust out of his clothes, and during that time, nor until he reached the hotel, did he utter a word.

The wheat imports in December aggregated 756,819 bushels, against 161,072 bushels in the preceding December; and during last year, 1,912,617 bushels, valued at \$1,601,790, against 276,660 bushels, valued at \$243,325, during the preceding year. The exports in December of imported wheat aggregated 325,094 bushels, against 69,523 bushels in the preceding December, and during the year 843,732 bushels, valued at \$704,664, against 203,125 bushels, valued at \$185,918 during 1890.

Queries and Replies.

Questions and answers are inserted under this head free of charge and all are invited to avail themselves of this column.

No. 21. Grain Options.—Will you please advise us of a good, reliable broker or firm that deals in grain options?—OHIOAN. [See advertising columns.—Ed.]

No. 22. Gas and Vapor Engines.—A number of parties here, myself among the number, expect to get gas or vapor engines in the spring, and if you can furnish us with cuts and description I shall receive the information thankfully.—I. N. RICHARDSON, Crestline, O. [See advertising columns of the AMERICAN ELEVATOR AND GRAIN TRADE.—Ed.]

No. 23. Corn and Cob Meal for Horses.—Can corn and cobs, ground into moderately fine meal, be fed to horses or mules without doing harm? I have been asked this question and would like to know what reply to make.—R. S. [R. S. need not hesitate to assure customers that the feeding of corn and cobs, ground together not too fine, is not at all injurious to horses. Indeed, such feed is thought by some to be even better than corn-meal alone.—Ed.]

No. 24. Delivery of Grain Sold.—If I buy grain of a Western shipper and he refuses to deliver the grain because the market advances before he ships the grain, can I attach grain he afterward ships into this state to other parties, the shipper having indorsed the bill of lading to buyers and sent though bank with sight draft attached? I have his letter accepting my offer for grain he did not deliver.—OHIO. [Buy grain to take place of grain he failed to ship, and if unable to purchase at the price he contracted to deliver it, sue him for the difference between the price you have to pay and the price he contracted to deliver it at. You can readily obtain judgment and then attach any grain he ships into the state C. O. D. The grain belongs to the shipper until bill of lading is delivered to buyer. His indorsement of bill of lading is conditional upon the payment of the draft attached. Some dealers have adopted a less troublesome method of collecting their loss of the shipper. If he refuses to ship at contract price they request shipment at the price he asks, and when grain arrives offer to settle at contract price or buy other grain at market price and attach shipper's grain for the difference between that price and the contract price.—Ed.]

CHICAGO GRAIN STORAGE RATES.

Storage rates for grain in the Chicago elevators for the year 1892 will be as follows:

On all grain received in bulk and inspected in good condition, three-quarters ($\frac{3}{4}$) of one (1) cent per bushel for the first ten (10) days or part thereof, and one-third ($\frac{1}{3}$) of one (1) cent per bushel for each additional ten (10) days or part thereof, so long as it remains in good condition.

On grain damp or liable to early damage, as indicated by its inspection when received, two (2) cents per bushel for the first ten (10) days or part thereof, and one-half ($\frac{1}{2}$) of one (1) cent per bushel for each additional five (5) days or part thereof.

No grain will be received in store until it has been inspected and graded by authorized inspectors, unless by special agreement.

Ocean freight room is plenty and rates easy, with the lowest figures for grain accommodation since the crop movement set in.

Stocks of wheat in call board warehouses of California February 1, aggregated 106,000 tons, as against 153,000 tons January 1, 1892.

One hundred cars of grain have been shipped to Philadelphia from Iowa to be sent to the starving peasants of Russia. Citizens of Philadelphia have contributed the cost of transportation over the ocean.

Our exports of corn to Mexico in December were 49,607 bushels, against 37,748 bushels in the preceding December; and during the year just closed, 251,930 bushels, valued at \$189,148, against 943,118 bushels, valued at \$522,244 during the year before.

NEW YORK'S GRAIN INSPECTION DEPARTMENT.

The grain inspection department was established at New York City Dec. 7, 1875. At present about forty men are employed, composed of inspectors, return clerks, inspector of weights, and helpers, assigned to different places. Many of these have been in the employ of the department since it was established.

Grain upon its arrival at the New York terminus of the various roads in the graded grain system, is inspected in the yards of the different roads by a force of men. When the inspection department first started under the supervision of the late A. D. Sterling, there were but three roads in the system, to-day there are eight.

Stationed in the inspection yard of each road are from three to eight men, an inspector or deputy, helper, return clerk, and inspector of weights. The inspector receives his slips or tissues of cars to be graded from the railroad company, the return clerk first copies the car numbers and consignees from the railroad slips into what is called an inspection book, he gets this already for the inspector, who starts out in the railroad yard in search for the cars as per numbers in his book.

When the inspector finds a car, a man they call the car opener, breaks open the seals, and the helper then gets into the car and draws an average sample from different parts of the load and submits them to the inspector. He passes on the grade, writes it in his grade book, and also marks a small ticket with the car number, grade, and all other information pertaining to it. This is tacked on the car as a guide for the railroad to unload by. This work is the same at all the roads.

After the inspector is through grading he takes his book to the return clerk, he copies the grades from the inspection book and fills out the stubs of his returns. The helper then brings book and samples of grades to the office in New York to be passed on by the Inspector-in-Chief G. H. K. White.

The weighers' duty is to verify the weights. The railroad and elevator each have weighers, each records the weight, and the three books must agree. When the cars are weighed the weight of each car is entered on weight slips used especially for weighing; this is sent down to the return clerk, who also verifies as to the correctness of the weight and fills in the number of bushels on the return or certificate. When these returns are all ready the department surrenders them to the railroad company, then the railroad company makes out their certificate from this return, which is attached to the certificate, and both delivered to the consignors. The department has warehouses and ship inspectors, to inspect all grain going into store on the grade, also coming out, or inspecting aboard of steamships.

There are about ten of these deputies. When a firm wants a cargo of a certain grade of grain inspected into a steamship he lodges an order in the inspector-in-chief's office. This order is given to the inspector who happens to be in that district wherever the vessel may lay, and when the steamship is ready to take the grain the inspector will, if it comes up to the grade, issue a certificate to the inspector-in-chief, which is kept on file. At the request of the exporter an export certificate for the grain is issued.

The inspector saves a fair sized sample of the shipment and sends to the inspector-in-chief's office where three samples of same are placed in separate packages. One in a bag stamped, tied and sealed, a box labeled and tied, both of which accompany the certificate and go to the exporter. The department also saves a sample which is preserved in the office, labeled and tied. This is kept for ninety days for any future reference.

In the inspection office in the Produce Exchange Building are several clerks kept busy transferring the reports of the different roads into the office records and issuing export boat and railroad certificates, and all other duties pertaining to inspection.

The registrars office connected with the department keeps account, based upon the inspectors' reports, of all grain going into or out of store or railroad elevators, and has its records so arranged that the exact amount of and kind or grade of grain in any warehouse can be ascertained at any time. No warehouse in the grade system can lawfully deliver any grain from its stores until the receipts representing it have been cancelled by the registrar.

The fees for inspection are as follows: Fifty cents per 1,000 bushels, into and out of store inspection; 50 cents per 1,000 bushels export inspection; \$3.00 per boat load or harbor inspection; car inspection, 50 cents per car load.

The inspections by rail have averaged about 78,000 cars per year, comprising all kinds of grain.

A biographical sketch of the inspector-in-chief appeared in a recent issue. Mr. White's chief deputy is Wm. H. Conklin.

DEATH OF SIMEON HOWES.

At his home at Silver Creek, N. Y., at midnight of January 28 Simeon Howes passed peacefully away from life. Born March 28, 1815, in Franklin county, Mass., he was at the time of his decease 76 years and 10 months old. For some months Mr. Howes had been a sufferer from kidney affections, but no apprehensions of fatal results were felt until about three weeks prior to his demise, he had a slight attack of la grippe, recovery from which left him much enfeebled, and ultimately unable to partake of and retain solid nourishment. He, despite the loving ministrations of his family and the close attendance of his physician, loosed his hold upon life and passed quietly to the other shore.

Simeon Howes was a son of Sylvanus and Persis (Crittenden) Howes. When he was about one year old his parents removed to Middlebury, Wyoming county. But in early life they were called home, and Mr. Howes was left an orphan to battle with life's problems alone when he had hardly reached his teens. He then returned to Massachusetts, and spent three years with his grandparents near the scenes of his birth. When he was 16 years old he returned to Wyoming county, N. Y., and from that time on was he left to hew his own way in the world. He finished his education at Middlebury Academy. For eight years he earned his living teaching school in winter and working on a farm in summer. In 1838 he married Angeline Ewell, of blessed memory to Silver Creek people, who entered into rest Aug. 22, 1888. The issue of this union was eight children, five of whom are still living, Mrs. G. P. Brand, Miss Charlotte L. Howes, Mrs. R. J. Quale and Mrs. W. H. Merritt of this village and Mrs. L. F. W. Arend of Buffalo. For fourteen years after his marriage he continued the occupation of farming, but on account of failing health he decided to turn his hand in other directions.

In 1853 Mr. Howes went to Miami county, O., and joined with Benjamin Rutter and Henry Rouzer in placing upon the market a combined smut and separating machine, which is said to have embodied in a crude form the principles of the Eureka machine. After a patent had been obtained they sold it to Ezekiel Montgomery & Sons of this village. Mr. Howes afterward went to Watertown, N. Y., where he directed his attention to improving the machine. In 1856 he moved to Silver Creek and joined hands with the Montgomerys in building the machines. In January, 1866, Mr. Howes, who by this time had become associated with the Babcock Bros., under the firm name of Howes, Babcock & Co., purchased the business of Messrs. Montgomery, and the firm changes since that day have consisted in the addition of Mr. Albert Horton in 1866, who the same year sold his interests to Mr. Carlos Ewell, the removal by death of Messrs. Babcock and Ewell and the purchase of the interests of the estates of these gentlemen by Mr. Howes, who for the past three years has been the sole proprietor of this immense establishment. When we consider that in 1865 there were only fifteen men employed at these works, while to-day there are 125, and while 300 machines were then turned out in one year that now the total sales are upward of 2,000 per year.

Mr. Howes was a man of wonderful vitality, industry and perseverance. As a result of those qualities and a firm faith in the excellence of his machinery, and the honest endeavor to make them as good as possible, he built up a business that was world wide. The magnificent shops at Silver Creek, with a trade extending wherever wheat is ground, are a monument to the admirable qualities of the man and his faith in the Eureka machinery.

A man of unstained integrity, whose performance always followed his word, no slur was ever cast upon his business honor or his private life. He was a true man, and a kindly man, and his death will cause deep regret among all who knew him, and nearly every one in the milling world knew Mr. Howes. His relationship to those who served him as workmen was exceptionally pleasant, and next to his sorrowing family his employees will feel the bereavement his death has caused.

Broomcorn was one of the best paying crops of 1891.

NEW YORK GRADES FOR CLIPPED OATS.

Mr. G. H. K. White, Inspector-in-Chief for the New York Produce Exchange, has kindly called our attention to a misstatement made by a shipper which was published in our January issue. The statement followed the announcement of new grades for clipped oats at Chicago and was as follows:

"Regarding the establishment of a regular grade of oats to be known as 'No. 2 white clipped,' a shipper said: 'New York has a regular No. 2 white clipped grade weighing 35 pounds to the measured bushel, and as this classification is well known among European buyers, and much of the foreign business is done on such a basis, we should have a like grade here. This would enable us to sell direct to foreigners and avoid possible confusion about the weight here and across the ocean.'"

The rules governing the inspection of clipped oats at New York are as follows:

EXTRA WHITE CLIPPED OATS shall be bright, sound, plump, well cleaned and reasonably free from other grain, weighing not less than 38 pounds to the measured bushel.

NO. 1 WHITE CLIPPED OATS shall be bright, sound, well cleaned and reasonably free from other grain, weighing not less than 36 pounds to the measured bushel.

Oats that otherwise would grade Extra White Clipped and No. 1 White Clipped shall not be deprived of the grade if but slightly stained.

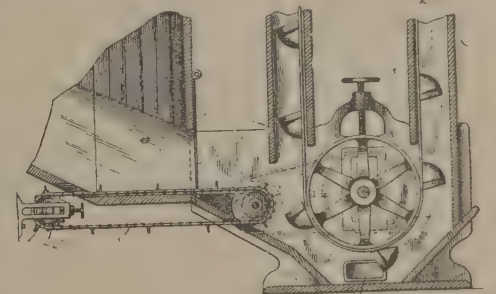
NO. 2 WHITE CLIPPED OATS shall be reasonably sound, well cleaned and reasonably free from other grain, but may be stained, weighing not less than 34 pounds to the measured bushel.

NO. 3 WHITE CLIPPED OATS shall be mainly white, reasonably sound, reasonably clean and reasonably free from other grain, weighing not less than 30 pounds to the measured bushel.

FEED MECHANISM FOR ELEVATORS.

A patent on the Feed Mechanism for Grain Elevators, illustrated herewith, has been granted to Boston S. Constant of Logansport and he has assigned one-half interest to Newton M. Bowen of Indianapolis, Ind.

The feed mechanism is located between the elevator buckets and the mouth of the spout which delivers the



grain into the elevator boot. It is composed of a series of sprocket wheels mounted on a spindle having bearings in the sides of the frame and is driven by a belt from shaft of elevator. A central sprocket wheel is connected by a drag chain to a sprocket wheel mounted in adjustable bearings in the rear and beneath the delivery spout. The revolution of the shaft in boot operates the sprocket wheels, and the drag chain carries the load forward from spout and delivers the grain into the elevator buckets on their way up. The mechanism will prevent clogging and blowing of elevators.

At the rain convention held in Doland, S. D., January 24, a representative of the Artificial Rain Company of Goodland, was present. A committee of five from five counties was appointed, and has decided to have a trial rain at that place between April 15 and 30.

Three acres of Iowa soil produced last year 346 bushels and 65 pounds of corn; over 115 bushels per acre, without commercial fertilizers. This yield was obtained by Wm. M. Husted of Des Moines, Polk county; and he received the prize offered by the Iowa Homestead for the best three acres of corn grown in the season of 1891. James Pemble of Wapello, Louisa county, harvested 815 bushels 63 pounds from three acres.

Trade Notes.

The Harrington & King Perforating Company of Chicago has increased its capital stock from \$20,000 to \$100,000.

The man who believes only in cheap advertising will get it if he waits awhile. The sheriff generally does it for him.

The Barnett & Record Company has been organized at Minneapolis by L. C. Barnett, J. L. Record, and J. C. Emmett. The capital stock is \$125,000.

The Webster Manufacturing Company of Chicago has increased the capacity of its shops by erecting an addition to meet the demand for the Lewis Improved Gas and Vapor Engine.

A resolution has been introduced by Congressman Scott asking that \$100,000 be appropriated for a special exhibit at the World's Columbian Exposition of corn and its products.

The Automatic Grain Separator Company has been incorporated at Lockport, Ill., with a capital stock of \$6,000. The incorporators are Daniel W. Long, Charles A. Goodale, Allen G. Hawley and others.

You have seen a magician take a slouch hat and by a few twirls of a stick make it spin in the air and become a thing of symmetry and beauty. Likewise has many a business felt the magical touch of the intelligent advertiser.

Belt manufacturers throughout the country have offered as exhibits at the World's Columbian Exposition all the belting needed. One firm will send a belt 150 feet long and 100 inches wide, which will be the largest belt, it is said, ever produced. The largest now in existence is seventy-six inches in width.

An advertisement to sell goods must do one or all of the following things: Attract attention; convince the reader that he needs such goods, or convince the reader that the goods offered by the advertiser are the best for him personally, on account of price or quality, or for some other satisfactory reason.

Simplicity is the great desideratum of all language, written or spoken, and the greatest writers and speakers are those who are the most intelligible to the greatest number. The greatest advertisement, therefore, is that which the weakest understanding may comprehend. Then the stronger understandings must comprehend.

The James Leffel & Co. of Springfield, O., is an old, reputable house of the highest standing, built up on thirty years' continuous business in the manufacture of their well known specialties of steam engines, boilers and turbine water wheels. The firm reports that its trade last season was very satisfactory, considerably more than was anticipated at the beginning of the year, and the present season is looked forward to as a busy one.

It pays to advertise when you want to start a business and make the business profitable. It pays to advertise when you have an established business; because advertising will prevent your business from declining. It pays to advertise when business is dull, for then you are sowing seeds of future prosperity. It pays to advertise when trade is brisk, because you are strengthening the very roots of your business against the dearth that may come.

A few years ago, when an attempt was made in England to feed the inmates of the almshouses on corn products, a wall went up all over that country about the heinousness of an attempt to feed these poor people on food only fit for the pigs and Americans. Some of these super elegant people, being unfortunate enough to get to America and get a square meal, at which were served some dishes prepared from fine corn products in incomparable style, took back with them a full-grown fad and all rivalry is now feeding on these products. Of course, this popularized the diet with the common people, and the German Emperor is now feeding his army on it. This demand is for a high grade of corn goods manufactured on special machinery. Ninety-five per cent. of the mills for its manufacture are planned and built by the Nordyke & Marmon Company of this city. They recently received cable orders from Hamburg and Berlin, Germany, for machinery for the manufacture of a high

grade of corn goods, these orders resulting from the satisfactory operation of the mill of 1,200 bushels daily capacity built by them in Hamburg last summer. The manufacture of this class of goods is assuming vast proportions in all parts of Europe. Inquiries have been received by Nordyke & Marmon Company within the past few days from different points in England, France and Germany, also from Barberton, South Africa, and different points in Mexico, besides numerous inquiries all over the United States.—*Indianapolis Journal*.

ADVERTISING is to commerce what steam is to an engine. That is a recognized fact. A firm, even with the great reputation for integrity and for scrupulous adherence to superiority in products, cannot now sit still and wait till orders are received. The spirit of the age, so far as commerce is concerned, is competition, in contradistinction to the monopoly of the past. Where one firm two or three years ago was alone in the production of a commodity in an area of greater or lesser size, there are now several, all equally able, equally willing. Such firms find it profitable to create an interest in their work by keeping their names before the public, and by educating prospective clients as to their products and their mode of constructing these.—*Engineering, London*.

EXPORTS FROM ATLANTIC PORTS.

The exports of breadstuffs, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from Atlantic ports during the two weeks ending February 6, as compared with same weeks last year have been as follows:

	For week ending Feb. 6, 1891.		For week ending Jan. 30, 1890.	
	1890.	1891.	1890.	1891.
Wheat, bus.....	1,801,400	176,900	2,019,100	399,800
Oats.....	3,567,300	246,600	3,366,300	239,100
Rye.....	280,800	5,500	369,900	.....
Flour, bbls.....	380,700	8,200	164,100	.....
	290,800	117,600	375,900	202,200

CORN CROP BY STATES.

According to the January report of the Department of Agriculture the area, product and value of the corn crop of 1891 was as follows:

States.	Acres.	Bushels.	Value.
Maine.....	29,526	1,107,000	\$ 885,780
N. Hampshire.....	37,246	1,333,000	1,026,723
Vermont.....	57,638	2,144,000	1,629,542
Massachusetts.....	54,134	2,138,000	1,667,869
Rhode Island.....	13,045	450,000	355,542
Connecticut.....	58,663	2,112,000	1,605,020
New York.....	694,328	22,080,000	14,572,556
New Jersey.....	360,915	12,343,000	8,023,140
Pennsylvania.....	1,397,211	46,527,000	26,520,462
Delaware.....	232,061	5,105,000	2,807,938
Maryland.....	740,425	18,881,000	10,006,844
Virginia.....	2,004,360	39,486,000	19,742,946
N. Carolina.....	2,672,054	37,676,000	21,852,057
S. Carolina.....	1,607,755	18,650,000	13,054,971
Georgia.....	3,100,745	37,829,000	26,102,071
Florida.....	496,342	5,460,000	4,367,810
Alabama.....	2,539,011	32,245,000	20,314,627
Mississippi.....	1,951,651	29,665,000	17,245,755
Louisiana.....	1,082,392	18,725,000	11,235,229
Texas.....	3,622,327	70,635,000	38,449,457
Arkansas.....	2,002,575	42,455,000	19,529,111
Tennessee.....	3,686,664	82,552,000	35,497,477
W. Virginia.....	691,885	18,888,000	9,822,000
Kentucky.....	2,759,832	82,795,000	33,117,984
Ohio.....	2,940,368	94,092,000	38,577,628
Michigan.....	1,055,363	31,133,000	14,943,940
Indiana.....	3,712,380	123,622,000	46,976,457
Illinois.....	7,011,336	234,880,000	86,905,510
Wisconsin.....	1,113,042	29,718,000	13,076,017
Minnesota.....	814,556	21,586,000	8,418,435
Iowa.....	9,569,716	350,878,000	105,263,483
Missouri.....	6,796,318	203,210,000	77,219,765
Kansas.....	5,714,337	141,885,000	48,243,551
Nebraska.....	4,762,840	167,632,000	43,589,512
California.....	161,470	5,571,000	3,955,208
Oregon.....	9,613	260,000	184,281
Colorado.....	33,397	933,000	494,509
North Dakota.....	38,422	701,000	240,238
South Dakota.....	994,130	21,018,000	7,356,274
New Mexico.....	57,415	1,511,000	756,500
Utah.....	35,527	675,000	405,008
Total.....	76,204,515	2,060,154,000	\$836,439,228

Last year much wheat was shipped to the Mississippi Valley from the Pacific coast, but so far this season none has been received.

McElven Commission Co., Brunswick, Ga.: "We cannot get along without the AMERICAN ELEVATOR AND GRAIN TRADE."

SCREENINGS.

Bread is the staff of life, but most men are looking for a "puddin'."

In the bright lexicon of speculation there is nothing so uncertain as a sure thing.

Lebanon, Pa., mothers take their infants to grist mills to ride them on the wheat hopper to make them measles-proof.

Mr. Jayseed dumped a load of wheat into Carson's Elevator last week which he claimed would grade No. 2 or better. The elevator leg was choked.

The Dakota gentleman who undertook to steal a carload of wheat should take his talents to New York, where it would be appreciated.—*Minneapolis Tribune*.

Bonder—Don't see you on 'Change nowadays. Wiped-out—No, I've left you fellows, and gone into an honest business. Bonder—Great Scott! I didn't know there was any.—*Puck*.

Corn oil is the latest corn product, and Chicago boasts that it is made only in that city. The Peoria people are not disturbed over the new corn liquid, however, as it in no way interferes with the popularity of the old-fashioned corn juice.—*Omaha Bee*.

At a telephone exchange a call came in from a residence to a feed store. "Hello! hello! What is it?" "Mamma says send up a sack of oats and a bale of hay," answered a child's voice. "Who is it for?" inquired the feed man. "Why, for the cow, of course," drawled the youngster.

Mr. Gotham—If the European nations would only take our American corn, it would be a good thing for everybody. Col. Kaintuck—Why don't they? They do not seem to know how to use it. By Jinks! I've a great notion to go over and teach 'em myself. I wonder what the freight will be on a small still?—*Life*.

"So you are back from Chicago," said one citizen to another. "Yes." "Had a lively time, I suppose?" "No doubt of it. I went into the Board of Trade." "Interesting, wasn't it?" "Very. I never before realized how completely the wind could be tempered to the shorn lamb." "I don't quite understand." "Before I went in every man I saw tried to talk me to death. After I came out nobody spoke to me."

A Western Congressman who has been in Washington for a month has been doing society with more or less success. The other night he was talking to a lady who has agricultural ideas, and she turned the conversation on to the grain yield in various states. After mixing her subject up with life in Washington, politics, society and other items of interest, she suddenly inquired: "How large is your corn?" "Well," he said, hesitatingly and with much confusion, "since I've been in Washington, wearing tight boots and walking on hard pavements, it's about as big as a walnut, and getting bigger every day." Now he's wondering what made the lady look so peculiar and change the subject.

"STOLEN FROM JOHN GOUGH."

Late advices from Guthrie, Oklahoma, state that for months the farmers along the Southern Kansas line have been systematically robbed of large quantities of grain. Some of the farmers of Cowley county fixed up a plan to catch the thieves, and had a lot of small cards printed which they scattered through the wheat in their bins. A few days later a negro drove up to a mill in Arkansas City and sold a load of wheat. When the wheat was emptied into the bin scattered through it were found a large number of cards bearing the inscription, "This wheat stolen from John Gough." Seeing that he was caught, the negro left his team and wagon and fled. He was captured after a desperate fight.

A brewer at San Francisco recently purchased 750 tons of barley at \$1.17 per cental.

The talk of car shortage in the Northwest this crop was mostly by people who wanted to ship each single carload of grain immediately after it was in condition to forward.

FARMERS of Hand and several adjoining counties in South Dakota propose to try artificial rain and will give \$500 for a trial shower. If satisfied with the plan, a contract for rain for the next crop season will be made.

EXPORTS OF BREADSTUFFS DURING JANUARY, 1892.

The total exports of breadstuffs, of grain and wheat flour during January, according to the report of the Bureau of Statistics, was as follows:

		New York.		Boston.		Philadelphia.		Baltimore.		New Orleans.		Principal Pacific Customs Districts. (a)		Total.	
		Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.	Quantities	Values.
BARLEY—Bushels.															
Month ending Jan. 31.....	1892	56,869	\$ 35,812	.....	.....	.....	.....	25,955	\$ 20,764	.....	.....	26,257	\$ 15,186	117,111	\$ 77,384
	1891	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43,541	\$ 32,908	43,541	\$ 32,908
Seven months ending Jan. 31.....	1892	557,623	357,240	19,612	15,014	.....	.....	25,955	20,764	.....	.....	1,400,833	910,187	2,012,058	1,308,827
	1891	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	319,465	223,677	319,465	223,677
CORN—Bushels.															
Month ending Jan. 31....	1892	3,493,497	2,009,674	371,022	197,255	4,282,053	\$ 2,236,905	4,519,480	2,353,189	924,231	\$ 517,214	7,444	5,512	14,132,019	7,599,967
	1891	591,136	343,089	83,034	51,292	60,611	38,646	325,832	195,750	63,838	34,758	8,321	6,549	1,326,811	787,622
Seven months ending Jan. 31.....	1892	12,891,657	8,251,025	3,047,402	1,778,578	6,658,247	3,303,125	6,550,161	3,571,786	1,378,523	804,248	58,331	56,439	32,346,848	19,156,090
	1891	8,903,818	4,767,501	1,518,576	791,054	1,300,122	676,824	2,649,762	1,371,991	1,657,515	812,458	71,635	56,334	19,521,998	10,120,167
OATS—Bushels.															
Month ending Jan. 31.....	1892	846,658	325,679	218	105	165,000	66,000	1,740	772	341	188	8,339	3,858	1,909,988	737,426
	1891	23,721	13,391	1,483	853	.....	.....	16	9	79	46	7,592	4,634	52,891	28,733
Seven months ending Jan. 31.....	1892	3,518,698	1,499,413	31,185	12,662	474,857	189,970	1,924	869	1,434	681	31,581	15,177	6,489,949	2,687,747
	1891	458,172	185,562	23,680	8,172	2,302	1,166	82	41	431	213	43,589	24,903	815,634	327,253
RYE—Bushels.															
Month ending Jan. 31.....	1892	680,410	726,544	.....	.....	.....	.....	68,786	65,519	75,994	64,820	.....	.....	825,190	856,883
	1891	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Seven months ending Jan. 31.....	1892	4,854,325	4,815,628	105,390	88,989	.....	.....	865,363	832,327	882,550	332,294	167,168	146,401	8,707,892	8,832,410
	1891	398,627	194,611	.....	.....	.....	.....	.....	.....	.....	.....	14,285	8,840	322,912	243,411
WHEAT—Bushels.															
Month ending Jan. 31.....	1892	3,717,613	3,914,843	419,236	424,260	109,254	114,364	1,922,161	1,964,046	1,810,993	1,891,043	4,270,651	4,397,935	12,471,224	12,927,807
	1891	539,791	569,194	.....	.....	8,483	8,653	154,987	155,547	219,270	195,918	3,315,572	2,658,485	4,278,143	3,629,867
Seven months ending Jan. 31.....	1892	41,613,612	44,619,941	2,271,385	2,339,534	6,571,159	7,022,567	16,656,311	17,248,044	10,363,828	10,963,407	25,655,167	26,001,870	107,593,187	112,618,310
	1891	5,984,273	6,078,123	124,580	125,503	243,685	240,737	2,568,814	2,485,761	763,151	691,694	16,162,714	13,441,947	27,253,298	24,015,718
WHEAT—FLOUR—Barrels.															
Month ending Jan. 31.....	1892	495,840	2,341,311	177,848	828,857	200,228	1,001,113	356,065	1,862,158	24,933	121,028	124,875	583,536	1,544,767	7,716,532
	1891	286,112	1,354,752	117,247	588,627	105,671	546,542	272,753	1,445,611	2,269	11,301	170,536	666,936	1,060,784	5,155,658
Seven months ending Jan. 31.....	1892	2,653,724	12,857,131	959,461	4,736,148	853,534	4,232,757	1,821,433	9,562,273	60,669	304,787	969,853	4,674,066	8,159,431	41,106,971
	1891	1,891,318	8,924,016	893,737	4,076,511	439,982	2,064,157	1,395,174	7,273,673	19,165	93,461	1,166,586	4,365,202	6,673,083	28,890,890
TOTAL BREADSTUFFS.															
Month ending Jan. 31.....	1892	.....	9,415,287	.....	1,515,564	.....	3,436,088	.....	6,347,133	.....	2,594,261	.....	5,006,137	.....	30,147,281
	1891	.....	2,329,498	.....	608,553	.....	533,815	.....	1,799,427	.....	242,043	.....	3,309,723	.....	9,718,526
Seven months ending Jan. 31.....	1892	.....	72,771,363	.....	9,300,444	.....	14,738,009	.....	31,387,835	.....	12,401,634	.....	31,808,869	.....	186,166,474
	1891	.....	20,476,346	.....	5,336,777	.....	2,932,716	.....	11,153,154	.....	1,597,494	.....	17,722,849	.....	64,524,799

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector P Bird Price the grain received at Chicago during the month of January was graded as follows:

WINTER WHEAT.									
Railroad.	White.			Ha-d.			Red.		
	2	3	4	2	3	4	2	3	4
C. B. & Q.....	1			16	29	24	60		1
C. R. I. & P.....		1	3	33	1	18	14		
C. & A.....				6	5	17	5		
Illinois Central.....				5			4	12	1
Galena Div. N. W.....							8	12	
Wis. Div. N. W.....	4	2		16	9	2			
Wabash.....				8	4	10			
C. & E. I.....					1	1			1
C. M. & St. P.....				2	33	12	2		
Wisconsin Central.....							3		
C. St. P. & K. C.....							3	4	
A. T. & S. Fe.....	2	2	14				34	30	2
Through & Special.....	2	6	60	6	62	44			
Total each grade.....	5	2	5	11	139	99	196	195	5
Total W. wheat.....									657

SPRING WHEAT.									
Railroad.	2			3			4		
	2	3	4	2	3	4	2	3	4
C. B. & Q.....	29	389	206	2			169	3	
C. R. I. & P.....	13	13	17				5	35	
C. & A.....				1					1
Illinois Central.....			2						1
Galena Div. N. W.....	64	203	67						24
Wis. Div. N. W.....	23	7	3						
Wabash.....			1						
C. & E. I.....									
C. M. & St. P.....	66	117	71				13	1	
Wisconsin Central.....									
C. St. P. & K. C.....	40	17	24				2	8	1
A. T. & S. Fe.....	4								
Through & Special.....	717	337	17				135		
Total each grade.....	956	1,086	407				14	7	326
Total Spg. wheat.....									2,801

CORN.									
Railroad.	Yellow.			White.			No Grade.		
	2	3	4	2	3	4	2	3	4
C. B. & Q.....	44	183	8	28	62	238	330		3
C. R. I. & P.....	3	157	2	28	29	449	144		
C. & A.....		92		16	4	167	4		1
Illinois Cent.....	196	311	50	40	96	296	59		
Gal. Div. N. W.....	5	128		10	2	352	529		9
Wis. Div. N. W.....									
Wabash.....	1	104		26	5	105			
C. & E. I.....	39	99	8	21	8	122	1		
C. M. & St. P.....		61		9	10	185	114		11
Wis. Central.....									
C. St. P. & K. C.....	2	14		3	12	44	44		
A. T. & S. Fe.....	7	125		3	7	233	19		
Through & Special.....	48	326		33	7	323	21		1
Total each grd.....	285	1,601	63	193	242	2,504	1,274		25
Total corn.....									6,189

OATS.

Railroad.	White.		2		3		No Grade.	
	2	3	2	3	2	3	2	3
C. B. & Q.....	100	294	91	88				
C. R. I. & P.....	91	454	46	71				
C. & A.....	28	25	42	2				
Illinois Central.....	151	182	178	30				
Galena Div. N. W.....	72	514	79	319	2			
Wisconsin Div. N. W.....	14	76	10	32				
Wabash.....	19	55	28	14				
C. & E. I.....	11	22	17	4				
C. M. & St. P.....	228	607	79	40	1			
Wisconsin Central.....	6	4	1					
C. St. P. & K. C.....	22	105	46	31	1			
A. T. & S. Fe.....	24	73	36	27				
Through & Special.....	70	61	53	14	5			
Total each grade.....	836	2,472	706	672	9			
Total oats.....					4,695			

RYE.

Railroad.	2	3	No Grade.
C. B. & Q.....	71	58	1
C. R. I. & P.....	30	13	
C. & A.....	9	2	
Illu is Central.....	12	8	
Galena Div. N. W.....	29	35	
Wisconsin Div. N. W.....	21	3	
Wabash.....	1	2	
C. & E. I.....	1	2	
C. M. & St. P.....	67	12	
Wiscon-in Central.....	3		
C., St. P. & K. C.....	7	5	
A., T. & S. Fe.....	8	5	
Through & Special.....	41	15	
Total each grade.....	295	160	1
Total rye.....			456



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A. J. MITCHELL, - - - Business Manager.

HARLEY B. MITCHELL - - - Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., FEBRUARY 15, 1892.

MIXING AT TORONTO.

The Toronto Board of Trade does not approve of shippers mixing inferior wheat with good, sound Ontario wheat, and has passed resolutions condemning the practice of dealers who ship frosted and wheat that is otherwise damaged to that market and mix it with good wheat. The board considers it "to the detriment and injury of the trade of Ontario," and has decided to "prosecute and punish all who are guilty of it."

The board will find it a very difficult matter to legally punish a dealer for doing as he desires with grain that is his own. If he wishes, he can mix his low grade barley with No. 1 wheat and sell or burn it just as he pleases, the board cannot interfere. If the millers and other members of the Toronto Board of Trade who object to mixed wheat want pure Ontario wheat, let them agree to pay more for it than for the mixed wheat. Let them refuse to buy the mixed wheat except at a price that will make mixing profitable.

For several years those engaged in cleaning and mixing grain have had a surer and larger profit than any other connected with the trade, and they will continue to mix until it becomes unprofitable, laws and resolutions to the contrary. Last year the largest and best equipped grain cleaning and mixing house in the world was completed in Chicago, and a contract has just been let for one nearly twice as large at the same point. Minneapolis cleaning houses were also enlarged, and the coming season promises to bring more activity in the erection of this class of houses at terminal points than of storage elevators.

The trade has recognized an improvement in grain passed through these houses, and so far has shown no hesitation about paying for the improvement. The average quality of the grain taken from these houses is far above the average of that received. They are equipped with every machine that will effect an improvement in the

grain, and the grain is handled to the best possible advantage. The cleaning and mixing houses have created a demand for off-grade grain, and brought about an improvement in the price thereof, much to the advantage of the producer and dealer in such grain. The Toronto grain improvers should retaliate by resolving to "prosecute and punish" any one of the croakers who buys mixed grain in that market. Such action would be just as reasonable as that of the opposition.

A POINTER.

During the war Congress thought the speculators were putting up the price of gold, and passed a measure prohibiting speculation in gold. Such a law could be justified on the ground of public policy; for the higher gold went the less was there hope of the Federal cause. But strange to say, instead of gold falling in price, it leaped up in the very face of legislation to put it down, and Congress repealed the law without a moment's unnecessary delay.

A similar thing happened when it was rumored a few days ago that the Hatch bill was sure to pass. Wheat went down. If the Hatch bill would add to the price of farm products, why did not the news put wheat up? A war in Europe would put up the price of wheat; the rumor of a war would send the price up. Why did not the rumor that the Hatch bill was sure to pass put prices up? Legislation depreciated our currency by putting gold up, and the rumor of it depreciates our wealth by putting the price of products down. Legislation is not omnipotent.

A GOVERNMENT STANDARD FOR GRAIN.

Senator Sherman has introduced in the Senate a bill "To provide for fixing a uniform standard of classification and grading of wheat, corn, oats, barley and rye, and for other purposes. The bill is substantially the one which was before the last Congress and which failed to pass, not from opposition, but owing to the immense volume of business before Congress. The bill is as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the Secretary of Agriculture be, and he is hereby, authorized and required, as soon as may be after the enactment hereof, to determine and fix, according to such standard as he may prescribe, such classification and grading of wheat, corn, rye, oats and barley as in his judgment the usages of trade warrant and permit, having reference to the standard, classification, and grades now recognized by the several chambers of commerce and boards of trade of the United States: Provided, however, that reference to such various classifications and grades shall serve only as a guide and suggestion in the matter of determining and fixing, by the Secretary, the United States standard herein provided for, but he shall not be controlled thereby, but shall determine and fix such standard and such classifications and grades as will, in his judgment, best subserve the interest of the public in the conduct of inter-state trade and commerce in grain.

SEC. 2. That when such standard is fixed and the classification and grades determined upon, the same shall be made matter of permanent record in the Agricultural Department, and public notice thereof shall be given in such manner as the Secretary shall direct, and thereafter such classifications and grades shall be known as the United States standard. All persons interested shall have access to said record at such convenient times and under such reasonable regulations as the Secretary may prescribe; and on payment of such proper charge as the Secretary may fix, a certified copy of the classification and grades shall be supplied to those who may apply for the same.

SEC. 3. That from and after thirty days after such classifications and grades have been determined upon and fixed, and duly placed on record as herein provided, such classification and grading shall be taken and held to be the standard in all inter-state and commerce in grain, in all cases when no other standard is agreed upon.

It will be seen that the bill is not mandatory in character. There would be no compulsion to use the grades, and no interference with established grades. So, nobody would be harmed, that we can see. On the other hand, the grain handling public would have a standard which would apply all over the country, and possibly ere long most of the buying and selling would be done by the government standard instead of by local grades. We do not believe that grain men would have

any objection to the passage of some bill like that of Senator Sherman's; but on the contrary would quite generally favor its becoming a law.

IN A NUTSHELL.

P. D. Armour tersely put the whole business of future trading and the effects of shutting it off on the farmer. Speaking for his own elevators he said: "There is a capacity for 10,000,000 bushels of grain. We have to send out emissaries and hustle to get the grain in there to make elevators pay. My money is back of every bushel of grain. It may be 3,000,000 or 4,000,000 bushels just now and may be double that before May. All I want is a small margin for handling the grain, because it can all be sold against future delivery. If I had to carry that grain, and sell it only as it is wanted, I should hesitate about buying it. It has cost me all the way from \$1.10 down to 90 cents a bushel. If there were no selling for the future, I should have waited, and bought the same wheat at 75 cents and perhaps 60 cents, or not at all, because this carrying and peddling out of actual property is attended by risks, losses and expense. The men who would be obliged to handle grain in that way would make big money, no doubt, but it would come directly off the price to the farmer."

FLAX PRODUCTION.

The census department has in press a bulletin on flax production, prepared by Special Agent Hyde, which contains much interesting matter on an agricultural subject respecting which little is known by those who are not directly engaged in the business. Although flax seed is reported from thirty-one states, Minnesota, South Dakota, Iowa and Nebraska produced 80.06 per cent. of the total amount, or 1,045,613 bushels in excess of the entire production of the United States at the census of 1880. Flax is now cultivated almost exclusively for seed, and in the old fiber producing states its cultivation is almost entirely abandoned. South Dakota had the largest acreage in 1889 and Minnesota the largest production of seed. Of the states containing 1,000,000 acres or upward in flax Wisconsin had the highest average yield of flax seed per acre, 11.42 bushels, and the highest average value per acre of all products, \$13.39. The average yield for the entire country was 7.77 bushels per acre.

As to the area in flax, the acreage is shown to have been in 1889, 1,318,698 acres and the production of flax seed, 10,250,410 bushels. The production of fiber was 241,389 pounds and the amount of flax straw sold or so used as to have a determinable value, 207,757 tons. The total value of all flax products was \$10,436,228. Throughout the greater portion of the principal flax-seed producing regions flax straw is of little or no value, and much of the so-called fiber is only of an inferior quality of tow, used chiefly for upholstering purposes. The future of flax production seems largely conditioned on the uses to which the straw and fiber can be put.

"TO BE GRADED; IDENTITY PRESERVED."

The freight committee of the Central Traffic Association has decided that, the notations "To be graded," and at the same time "Identity preserved," on a bill of lading for grain, are contradictory terms, and have requested roads in the association to discontinue the issue of bills of lading with both these notations. Grain received from connecting lines for which bill of lading with these notations has been issued, will be treated as "To be graded" grain.

When grain is sent to a storage elevator its identity is always lost. When sent to transfer houses its identity is always preserved. It is possible to have grain graded and its identity preserved at storage elevators by paying for a special storage bin, but the prospective gain does not always justify the expenditure. If every rail carrier had a modern transfer house at its junction

tions and termini, as they should have, shippers would be saved much trouble and some expense.

At the seaboard ports it would be a difficult matter to preserve very long the identity of each carload of grain without placing the grain in special bins, but the railroad companies could preserve the identity of the grain four or five days by permitting it to remain in the car, as was probably desired by the shippers who had the words "To be graded; identity preserved" placed on same bill of lading. Carriers provide warehouses for preserving the identity, and the condition of other freight, and do not even think of refusing to do it, but with grain, which is their principal source of revenue it is quite the contrary.

MEASURED AND COMMERCIAL BUSHELS.

Those connected with the grain trade should not forget that the first estimate of the wheat crop sent out each year by the government statistician is the quantity in measured bushels, not commercial bushels of sixty pounds each. An estimate of the crop in commercial bushels will be issued later. The estimate in commercial bushels has invariably been less than the estimate in measured bushels and the difference has varied from eleven to twenty-four million bushels. The first estimate on the wheat crop of 1890 was 399,262,000 bushels, but as the average weight per bushel was only 57.2 pounds the crop amounted to only 380,915,903 commercial bushels of 60 pounds each.

The average weight per measured bushel of the wheat of the eight crops immediately preceding the last crop was 57.6 pounds. If we take this as the average weight of the 1891 crop we find that, instead of the enormous crop reported as having been harvested, we produced only 587,145,000 commercial bushels.

It has been the custom to use the government's estimate in measured bushels in all computations, even after its estimate in commercial bushels has been issued. This is decidedly wrong and misleading. The reports of exports, receipts at primary markets, visible supply and all other reports are made in commercial bushels, and the estimate of each crop in commercial bushels is the quantity that must be used to arrive at a conclusion anywhere near the truth.

THE "OPTION" BILLS.

The chief point of interest to grain men, millers and farmers the past month has been the discussion of the various so-called "option bills" by the public press, in the exchanges of the country, and before the House committee at Washington. The Washburn bill, introduced in the Senate before the Holiday recess has drawn the most fire. Its author has amended it so as to eliminate, he believes, the features obnoxious to legitimate trade. Of late, little or nothing has been heard of the Senate bill, but the sessions of the agricultural committee of the House have resounded with the arguments of some of the best-known grain dealers of the country and the shouts and denunciations of C. Wood Davis and others of his ilk who reduce all argument to lurid rhetoric and a scattering of epithets.

Such men as Mr. Sawyer of Duluth and Mr. Aldrich of Chicago have presented their side of the controversy with admirable skill and convincing directness. Whether their well-weighted words and arguments will have proper weight with the committee, remains to be seen. Unfortunately, this is a presidential year; and as the farmer vote is the bone of contention, ambitious statesmen are not so open to conviction as they might be immediately after an election. We are not disposed to sound an alarm; but we fear that both House and Senate may pass some fool law for effect, if nothing else.

Our readers are well acquainted with the fact that there are abuses connected with the grain trade. It would be well if these could be cor-

rected without interfering with legitimate business. But all of the bills introduced seriously interfere with contracts for future delivery. All of them take it out of the power of the grain dealer to insure himself. They all virtually insist that he speculate in cash grain; and this simply means that capital will either refuse to carry the crops, or will insist on a margin so large as to be insurance. Here is where the farmer is standing in his own light, though he does not see it. If grain dealing is to be done on the same basis as 40 years ago, the grain dealer cannot pay any such prices as he now pays the farmer. The reason why he can pay as much as he does and stay in the market all the time is simply because he can insure himself. If the Washburn or Hatch bill becomes a law the farmer will find that capital will not engage in the business of carrying the immense crops of the country and afford the farmer a cash market, without some hope of reward. Either the farmers or the speculators must pay for the insurance. If the speculator is prevented by law from doing the insuring the farmer must do it by accepting lower prices for his grain.

WORKING AGAINST THE ELEVATOR COMBINE.

The Canal and Harbor Protection Union of New York is hard at work trying to overthrow the railroad grain elevator combine of that state, but the prospects of success are not promising. Laws governing transfer charges in that state were enacted several years ago, but have not yet been enforced, and the elevators propose to escape the penalty of the law by refusing to do a transfer business.

At a meeting held in New York City last month it was resolved that—

WHEREAS, The railroad grain elevator combines of New York, Brooklyn and Buffalo are in league to kill the Erie Canal and drive individual enterprise off from the lakes, having boastfully declared that they could get around any law enacted to limit their charges; and

WHEREAS, The aforesaid combines have actually made the grain pay three-quarters of a cent a bushel more since the elevator law was enacted than was charged previous to the law, and as they unmercifully discriminate against individual vessel owners and canal boats at Buffalo; therefore be it

Resolved, That in order to effectually destroy these unholy combinations, we request the legislature of 1892 to make immediate provisions by law for the construction of a suitable number of grain elevators, to be operated by the state at the before-mentioned ports, said elevators when placed in operation to transfer grain from lake vessels to canal boats and from canal boats to ocean vessels at the lowest possible cost for such services.

A bill has been introduced in the New York Legislature providing that the state expend \$200,000 for two floating transfer elevators at Buffalo and four at New York harbor. Another convention, to take action against this unlawful elevator combination, will be held at Albany this month. Although the people of New York, and especially the Erie Canal boatmen, are the only active workers against this pool, the grain producers and dealers of the West and Northwest have much at stake, though they seem to be trying to ignore that fact.

This powerful combine did more toward killing that effective freight rate reducer, the Erie Canal, last year than for some years, and as soon as navigation closed the rail carriers advanced rates.

By keeping the fourteen floating elevators and several storage elevators, which could be used for transferring grain from lake vessels to canal boats, in idleness, the combine caused a grain blockade, which extended to every rail grain carrier of the country, thereby compelling lake, other rail carriers and grain shippers to sustain heavy losses.

The combine merits, and the grain shippers of the West and Northwest should see to it that it receives the attention of the government officials intrusted with the enforcement of the anti-trust law. No meeting of the grain dealers or producers should be held without adopting resolutions denouncing this gigantic combine and calling upon the government to destroy it.

The erection of floating grain transfer elevators

by the state of New York at the state termini of water transportation would prove a source of income to the state, and in a measure thwart the efforts of the combine to destroy the Erie Canal, and insure less profitable rates to the combine. The combine could not buy up the state elevators, but it might buy up the employes thereof unless great care was taken in selecting managers.

LIABILITY OF RAILROADS FOR UNNECESSARY DELAY.

A correspondent at Litchfield, Ill., writes us as follows:

Editor American Elevator and Grain Trade:—To what extent, if any, are railroad companies liable for failure to deliver grain within a reasonable length of time?

When grain has been sold for time delivery and fails to get in, contracts are canceled on a declining market and this causes serious loss in some cases. We have a number of cars out between here and Baltimore which have been on the road for over two months, and the market in that time has seen a big decline. Is there no recourse against the common carrier?

FRED. C. BARNETT.

The liability of the common carriers is a pretty wide subject; but state reports are full of decisions, the tenor of which is quite clear that a common carrier is responsible for loss occasioned by unnecessary delay. In the case of the telegraph companies, there are dozens of decisions establishing the liability of the companies for the non-delivery of important messages. A common carrier must not consume an unreasonable time for carriage. It is responsible for loss incurred by such unreasonable detention of goods or negligence in delivering them. In the case cited the shipper could without doubt recover the difference between the contract price and the price which the goods brought on delivery. Some of the states, Texas for instance, have very stringent enactments on this subject, fixing a penalty as well as the damages.

REVIVING PHILADELPHIA'S GRAIN TRADE.

Philadelphia grain merchants and many prominent members of the Commercial Exchange are seeking to take advantage of the establishment of the terminus of new Atlantic ocean steamship lines at that city by securing more equitable rates on grain shipped to that city and by encouraging in other ways the building up of Philadelphia's grain trade.

Where the rate on grain from Pennsylvania points to Philadelphia is too high, as is the case with most rates, the grain merchants are striving and with good effect, to have it reduced. The managers of each rail line centering there have promised to co-operate with the grain men in their efforts to increase Philadelphia's grain trade.

A special effort is to be made to encourage the shipment of grain to Philadelphia from the west by way of the great lakes to Erie, Penn., and from there by the Philadelphia & Erie Railroad. To start with, this route has two great advantages for export grain over the lake and rail route to New York city. Erie has no railroad elevator combine to charge extortionate rates for transferring grain, neither has Philadelphia and the harbor charges at the latter city are enough less than those at New York to more than offset any difference in ocean freight rates. The rate by lake and rail to Philadelphia the coming season will be less than to New York if the Philadelphia dealers can possibly secure it.

Last year Erie received by lake 10,658,985 bushels of grain and 953,164 barrels of flour, and this year the receipts will undoubtedly be much larger, as the lake carriers and the Western shippers are beginning to realize that the Buffalo railroad elevator combine seeks not to give good service, but to bleed the trade. The grain merchants are not going about this matter in a half-hearted way, but are earnestly giving their time and attention to it and this fact will insure success.

Grain Dealers' Associations.

KANSAS AND NEBRASKA GRAIN DEALERS' ELEVATOR ASSOCIATION.

President, MASON GREGG, Lincoln, Neb.; *Vice-President*, FRANK LOWER, Council Grove, Kan.; *Secretary*, W. T. CAYWOOD, Clifton, Kan.; *Treasurer*, O. A. COOPER, Humboldt, Neb.

STATE GRAIN DEALERS' ASSOCIATION OF TEXAS.

President, S. F. McENNIS, Dallas; *Vice-President*, E. EARLY, Waco; *Treasurer*, J. P. HARRISON, Sherman; *Secretary*, G. D. HARRISON, McKinney. *Directors*, J. F. McENNIS, J. P. HARRISON, E. EARLY, S. E. McASHAN of Houston and C. F. GRIBBLE of Sherman.

GRAIN SHIPPERS' ASSOCIATION OF NORTH-WEST IOWA.

President, T. M. C. LOGAN, River Sioux; *Vice-President*, H. HANSON, Odebolt; *Secretary and Treasurer*, F. D. BABCOCK, Ida Grove; *Assistant Secretary*, F. G. BUTLER, Schaller.

Executive Committee, E. A. ABBOTT, Des Moines; J. Y. CAMPFIELD, Sac City, and T. M. CATHCART, Kingsley.

GRAIN DEALERS' AND MILLERS' ASSOCIATION OF THE CUMBERLAND VALLEY.

President, S. C. WAGNER, Newville, Pa.; *Secretary*, JOHN A. MILLER, Oakville, Pa.; *Treasurer*, D. H. MILLER, Oakville, Pa. *Executive Committee*, J. K. BEIDLER, Oakville. J. W. SHARPE, Newville. U. G. BARNITZ, Barnitz; H. K. MILLER, Huntsdale, and J. H. BRINKERHOFF of Walnut Bottom, Pa.

ILLINOIS GRAIN MERCHANTS' INSURANCE AND PROTECTIVE SOCIETY.

President, H. C. MOWREY, Forsythe; *Secretary and General Manager*, S. K. MARSTON, Onarga; *Vice-President*, EDWIN BEGGS, Ashland; *Treasurer*, E. R. ULRICH, Jr., Springfield.

Executive Committee, E. F. NORTON, Tallula; F. M. PRATT, Decatur; T. P. BAXTER, Taylorville. *Committee on Claims*, W. B. NEWBIGIN, Blue Mound.

GRAIN DEALERS' ASSOCIATION OF OHIO.

President, E. C. WAGNER, Columbus, Ohio; *Vice-President*, E. M. BENNETT, JR., Urbana; *Secretary*, E. W. SEEDS, Columbus; *Treasurer*, J. W. McCORD, Columbus.

Board of Managers, J. C. HANNUM, Duvals; J. W. JONES, Radnor; J. P. McALLISTER, Columbus; J. W. WOLCOTT, Conover, and N. R. PARK, Ada.

Legislative Committee, J. W. McCORD, D. McALLISTER, E. W. SEEDS, E. C. WAGNER, W. A. HARDESTY, and E. C. BEACH.

EDITORIAL MENTION

THE Farmers' Alliance now owns or controls fourteen warehouses in the state of Washington.

READERS desiring information on any subject relating to the grain trade should make use of our "Queries and Replies" department.

Do not be backward about sending in your opinions on any matter of interest to the grain trade. We will be pleased to publish communications from any one connected with the trade.

THE National Board of Trade adopted resolutions favoring the adoption of a uniform bill of lading as an amendment to the Inter-State Commerce Law. A resolution was also adopted asking that Congress also amend the law so as to make common carriers liable for loss from delay of cars in transit.

It seems that Senator Washburn overlooked one important thing in his bill. In order to have a constitutional excuse for interference with trading in futures, it was necessary to make it a revenue bill. But all bills for raising revenue

must originate in the House. The hearing on the Senate bill is set for an early day.

THE Minneapolis Chamber of Commerce has filed the long expected petition with the Inter-State Commerce Commission regarding the discrimination practiced against Minneapolis and in favor of Duluth and West Superior, in the matter of wheat rates. A hearing is not expected before spring.

DURING January the Omaha grain inspection department inspected 78 cars of wheat, 767½ cars of corn, 177 cars of oats, 11 ½ cars of rye and 2 cars of barley. The department at Lincoln, Neb., only inspected 300 cars of grain, yet its expenditures did not exceed its receipts. Not so at Omaha, however.

COUNTRY elevator and grain dealers who desire farmers to bring them grain of good quality should make an effort to supply them with seed of superior quality. Traveling sharks who sell them stuff for seed seek only to get their money and have no further interest in them. If you do not know where to procure good seed see advertising columns of this journal.

OCEAN freight rates on grain are declining and have been doing so for several weeks. They can go down lower and still leave a fair profit for carriers and the prospects are that they will do so. Grain exporters are, of course, pleased with the decline, and will take advantage of the low rates. The export trade in corn promises to be more active than other grains.

THE passage of such a bill as that of Mr. Hatch or Washburn would be a long step in the direction of socialism; quite as much so as the establishment of a subtreasury. It is strange that men who avow themselves enemies of socialism in the abstract should fall over themselves in the effort to make laws that contain the quintessence of socialism.

SEVERAL bills have been introduced in Congress to lower the duty on barley from 30 cents per bushel to 10 cents per bushel, the old rate. The Merchants' Exchange of Buffalo has indorsed the bill. Mr. Lockwood has introduced a resolution which states that the increased duty has benefited no one while inflicting serious injury on the elevating, malting and brewing interests of the state.

ALL the rice mills of New Orleans were turned over to the newly formed Rice Trust on February 4. All the mills but four have been closed for the present. The title of the trust is the New Orleans Rice Milling Company. Henry C. West is the manager. It is understood that ten per cent. of the purchase price (which was very liberal), was paid down as a forfeit; other payments to be made after July 1.

THE reciprocity treaty between Germany and United States went into effect the first of this month, and German millers have already ordered corn milling machinery from this country to prepare to meet the prospective demand for corn products. Now that the gates have been opened and the demand created, our grain exporters should be prompt in taking advantage of the opportunities and strive earnestly to build up a large export trade in corn with Germany.

NEBRASKA's State Board of Transportation is still trying to induce the railroad managers of that state to make a milling-in-transit or warehouse rate on grain shipped to Omaha, the object being to encourage the shipment of grain to that market for distribution. Other cities similarly situated and many that are not so located have such a rate and it would be no more than just that the request of the Omaha grain merchants be granted. At first the revenue of the carriers might be slightly reduced but

would soon be increased by greater shipments. Much of the grain would ultimately be shipped through, although held for a time on an in-transit rate. On such grain the carriers' revenue would be increased.

THE underwriters at Minneapolis as well as at Chicago have arrived at the conclusion that they are insuring grain and elevators too cheaply, and an organized effort is being made to restore rates. The practice of making managers, bookkeepers and others connected with the grain trade solicitors and giving them a good commission will be stopped. The commission is intended to be, and in fact is a rebate to the insured. Cut-throat competition is just as unprofitable in the insurance as the grain business.

AND now come the Milwaukee malsters protesting against any reduction in the duty on barley, which the Eastern malsters are endeavoring to obtain. They have united in a petition to Congressman Mitchell asking him to use his influence against the Fitch bill. The petition asserts that under the present duty Western barley has displaced the Canadian cereal in many Eastern breweries, and that the malting industry of the country, and especially of the West, was never in a more prosperous condition.

PUBLIC elevator men of Chicago have taken advantage of the market, bought flaxseed and sold it for September delivery so as to get storage charges on it. All dealers know and agree that it is directly against their interests to place grain in a public elevator whose proprietor or manager is permitted to deal in grain stored in his house, yet they do it and submit to the imposition with little complaint. The Chicago Board of Trade has made several efforts to stop this practice of the public elevator men but in vain.

A NEBRASKA shipper of baled hay has discovered that while the Chicago, St. Paul, Minneapolis & Omaha Railroad has been charging him 6 cents per 100 pounds on baled hay from Tekamah to Oakland, a distance of 16 miles, the same company charges but 5 cents per 100 on baled hay from Bancroft to Omaha, a distance of about 68 miles. All the points being within the state the Board of Transportation will have to deal with the carrier. The most it will do will probably be to order a readjustment of the rates. Carriers making such unreasonable and burdensome discrimination should be heavily fined.

CHICAGO insurance companies are complaining a great deal about grain rates, and two at least have ordered their agents to cease writing until the schedule is fixed at a figure somewhat adequate. They complain that grain in Chicago elevators is written at \$1.25 per annum, or 88 cents short, making a per cent. of 79 cents per \$100, and on which there is a reduction of 10 per cent., while in other cities the rates are fully 3 per cent. (\$2.10 short) with no rebate. The ordinary charge in Chicago is \$1.25, with a rebate of 10 per cent. Elevator men and grain holders are not dissatisfied with present rates, nor will they object to a reduction. Free competition is an active profit cutter.

WEIGHMASTER JUNIUS S. SMITH of the Merchants' Exchange, Buffalo, has issued his annual report, in which he shows the amount of grain weighed under his supervision to have been 75,597,079 bushels. The grain weighed was short 38,460 bushels, and over 20,388 bushels. In an effort to show the advantages of his "reliable system of weighing," Mr. Smith says the "average per 1,000 bush. 0.239." He neglects to state what this average is, and some may think that it is the amount allowed by weighmen for shrinkage of the grain while in Buffalo elevators. It is neither the average shortage nor the average overrun, but the net average shortage per 1,000 bushels for the entire year. This net average shortage varies greatly for the different grains. Per 1,000 bushels of wheat it was .286, oats .41, corn .017, rye .13, barley .50, and flaxseed .42.

The net average was heavier on the shipments from the new elevator at Washburn than on shipments received from any other port, being .78.

If grain dealing is to be a hand-to-mouth sort of an affair, the miller and the man who carries the grain must have a big margin in order to make the business safe.

If you are a good guesser and a subscriber to the *American Miller* or become a subscriber before the end of this month you have a chance to get \$100 for nothing. The subscriber to that journal who guesses the nearest to the number of subscribers received by that journal during the three months ending February 29 gets the prize offered—\$100 in cash.

THE executors of Mr. Simeon Howes, Messrs. Charles N. Howes, Elgin Keith and George E. Towne, announce that by the terms of his will, the business of the Eureka Works at Silver Creek, N. Y., will be continued by them under the firm name of S. Howes. Two of the executors are familiar, from long association with Mr. Howes, and active participation in the business, with every detail of the Eureka machinery and the needs of the public. No effort will be spared to maintain the high standard of the Eureka machinery and improve it, if possible.

SAYS M. L. Scudder, "It seems reasonable to conclude that the total amount paid for any of the agricultural crops of the country by the final consumers, is neither lowered nor raised by the speculative buying or selling which has been conducted during the marketing of the crop. There may be exceptional circumstances under which this conclusion is not true, as for example, when a great corner in any commodity is run for a long period, that is, from one crop to another. But such a case would not affect the correctness of the reasoning so far as the effect of short-selling on average price is concerned."

THE officials in charge of the inspection and weighing departments at Omaha seem to be determined to give as poor service and get as much pay as possible, to which the grain dealers on the Omaha Board of Trade are directly opposed. They have denounced the department chiefs and written a letter to the State Board of Transportation sharply criticizing the management of the departments. Last month the inspection department ran behind \$51.41 although the receipts were \$362.60. The expenditures of the weighing department exceeded the receipts by \$185. Such management is fast bringing the departments into disrepute and the law into disfavor.

UNITED STATES JUDGE ALLEN of the Southern District of Illinois has just made a decision in a case exactly similar to the Counselman case, involving the constitutionality of the Inter-State Commerce Law. Richard Dole of Detroit, manager of a fast freight line, was wanted to testify before a federal grand jury for the purpose of indicting the general manager of the Wabash lines and J. B. M. Kehlor of St. Louis on the charges that Kehlor had been given rebates on flour shipped. Dole's attorneys took the ground that he could not be compelled to testify in case where he might be incriminated, and Judge Allen decided that he need not testify nor produce the books and papers of his corporation.

THE so-called option bills were at first made light of by many prominent dealers, notably here in Chicago. It suddenly dawned on them that there was a possibility of the passage of the Hatch bill, and then there was a small-sized panic and a committee was hastily made up to go to Washington and appear before the Solons of Mr. Hatch's agricultural committee. We are not in the business of prophesying; but we regard it as certain that some sort of a bill regulating trades on change will pass both House and Senate, and it largely lies with grain men who

testify before the committee whether it be a fool bill or a moderate measure aimed at puts and calls which are wholly indefensible, and other such abuses.

A noteworthy incident occurred in the committee room during the investigation of the option business of Mr. Hatch's committee. The advocates of the bill had been arguing that the policy of the bears in selling grain which they did not possess was bound to depress the market below its normal point. Committeeman Moses of Georgia, who evidently inherits the family wisdom, inquired: "You say that selling depresses the market?" The chorus was strong in the affirmative reply. "Buying, then," continued Committeeman Moses, "must raise the price." The chorus admitted that it did. "Somebody buys what is sold," concluded the pertinacious committeeman; "why doesn't that keep things even?" The silence could be felt.

THE Santa Fe Railway Company, following in the path of the Missouri Pacific, has issued an order which will probably result in the shipment of more grain from Kansas points direct to points south of that state than have been made heretofore. After to-day the company will decline to join in the absorption of any rates on grain or grain products into Kansas City, reconsigned from Kansas City to all points on the Gulf, Colorado & Santa Fe Railway south of Temple and west of Belton; all points on the San Antonio & Aransas Pass Railway; all points on the International & Great Northern Railway west of Jacksonville and south of Corsicana, including the Austin branch; all points on the Southern Pacific lines in Texas.

COUNT TOLSTOI says, in an interview, that the grain now in Russia will not last until spring, and that it will be necessary to import grain from America. Merchants are unwilling to inform the government of the amount of their stocks, as they wish to retain all they can for higher prices. This has caused some acts of severity on the part of the government authorities. In Kiev a merchant who had tried to deceive the authorities as to the amount he had in stock was publicly exposed in front of his store, tied up by the thumbs to the lantern post. His stock was confiscated and he was sentenced, in addition, to six months' imprisonment. Other merchants suspected of concealing grain for higher prices have been threatened with similar penalties.

THE bill of Mr. Alexander of North Carolina, to regulate "grain gambling" is unique to say the least. Mr. Alexander's measure adopts the example already set up in the case of the lotteries, and provides for the exclusion from the mails of all letters, postal cards, circulars and other literature relating to "gambling" in agricultural products, and of all newspapers, prospectuses, pamphlets, etc., containing advertisements of such business and of market reports of quotations and transactions therein. It orders that a tax of \$2 per word shall be levied on all telegram or telephone messages used in pursuance of the aforesaid "gambling." Of course such a bill is a clear infraction of the constitution. The idea of muzzling the public press by any such measure, could originate only in the mind of a man who has no conception of liberty. The death penalty might as well be attached at once, and the powers of Congress be made unlimited.

A LARGE quantity of our corn has already been exported to Mexico to relieve the people of the short crop states and more will follow. In three central states where corn is the principal food of the poor people, the last crop was almost a complete failure. These are Durango, Zacatecas and San Luis Potosi, with a total population of about 2,000,000. Other Mexican states had little corn to spare, and that produced in these states was held by speculators and wealthy farmers. The import duty is 25½ cents per bushel, but the last Congress authorized President Diaz to admit 500,

000 fanegas or 1,385,000 bushels free of duty. The governors of these states will import much of this amount, and sell it direct to the poor consumer at actual cost. It is not probable that we can build up a permanent corn trade of any importance with Mexico, but while the Mexicans need our corn as at present, we can export a great deal more by making vigorous efforts to supply their wants. The freight on corn by rail to the states named is unreasonably high, and much could be saved by sending corn by water to Tampico, and distributing it from that point as needed.

The official in charge of the Nebraska grain department has rendered a decision that is decidedly unique. A citizen of Alexandria desired to transform a building he owns into a grain warehouse and rent space to farmers by the year without taking out a warehouse license as required by law of those doing a storage business for compensation, but, the overly officious official in charge wrote to the gentlemen that he could not be allowed to go into a warehouse business on any such basis. The gentleman did not desire to do a storage business, but a renting business. It would make no difference to him whether the farmers put any grain in the house or not his income would be the same. If it had been the intention to rent the house to one farmer, as he could easily have done, for its capacity was to be only 3,000 bushels, the official might have grasped the idea that he desired to do a renting business only. Near sighted, bull-headed officials seem to strive to make the law obnoxious rather than enforce either the spirit or the letter of it.

DEEP WATERWAY TO THE SEA.

In the last issue of the *AMERICAN ELEVATOR AND GRAIN TRADE* we stated that the most practical and least expensive plan for securing a waterway to the sea would be to make arrangements with the Dominion Government whereby the Welland Canal could be deepened to accommodate lake vessels and since then the committee on Foreign and Inter-State Commerce of the House of Representatives has requested the President to negotiate with Canada to secure the speedy improvement of the Welland and St. Lawrence canals to the depth adopted for the United States canals which is twenty feet.

This should be promptly acted upon and every effort made to secure the improvement of these canals. A waterway to the sea that will accommodate our largest lake vessels will prove a greater boon to the American people than even the completion of the Nicaragua Canal, the reciprocity treaties, or any other matter of national importance about to be or recently consummated.

Cheap, safe and easy transportation from the interior to the sea by water would give our export trade such encouragement and assistance as to increase it far in excess of the fondest hopes of the most sanguine enthusiasts. Let us have this, the only practical deep waterway to the sea, let the country's grain trade be set free from the clutch of the New York railroad grain elevator combine and from the high rates of the rail carriers.

INDIANA AGAINST THE WORLD FOR CORN.

Indiana gives warning to the other corn growing states that she is after the premiums for the best corn at the World's Fair in 1893. The farmers of Fayette county so announce, and we know of some in Johnson and Boone counties that have made the resolve to try for some of them. Montgomery, Rush, Bartholomew, Greene, Vigo, Sullivan and several others that we might name are equally fertile, and will no doubt compete. Ohio, Illinois, Iowa, Nebraska and the rest may as well give us the field.—*Indiana Farmer*.

Our hay imports in December amounted to 5,121 tons, against 2,490 tons in December, 1890; and for the year, 59,378 tons, valued at \$451,822, against 99,314 tons, valued at \$844,582, for 1890.

ELEVATOR AND GRAIN NEWS

Sherman, S. D., wants a grain buyer.

Winnipeg, Man., wants another elevator.

Murdock, Minn., wants a grain elevator.

A new elevator is to be built at Cozad, Neb.

An elevator is to be built at Monroe, Neb.

An elevator is wanted at Smith Lake, Minn.

A grain elevator will be erected at Centerville, Md.

The farmers have opened their elevator at Regina, Assa.

A. D. Miller has entered the grain trade at Gahanna, O.

A cotton-seed oil mill will be established at Cook, S. C.

C. E. Williams, hay dealer at Portland, Me., has sold out.

J. F. Ashworth, grain dealer at Cylinder, Ia., has sold out.

Pratt Bros., grain dealers at Eddy, N. M., have sold out.

The Burress Grain Company of Burress, Neb., has sold out.

A cotton-seed oil mill will be established at Farmerville, Tex.

J. D. Anhalt of Burkittsville, Md., is enlarging his distillery.

Munson, Ia., ships from six to twelve carloads of grain every day.

William Fields has completed a new elevator at Henderson, Ky.

Jacques & Douglas have gone into the grain business at Ottawa, Ont.

A new 30,000-bushel elevator has just been built at Bathgate, N. D.

A company has been organized to build a broom factory at Norfolk, Va.

Walter N. Morey, hay dealer at Spencer, Ia., has sold out to Daniel Sturff.

Wilson Welsh, dealer on the Philadelphia Commercial Exchange, has failed.

N. Bawlf of Rapid City has completed his new grain house at Hamiota, Man.

The Victoria Brewery and Ice Company will erect a brewery at Victoria, B. C.

The rice mills of New Orleans have been placed under the control of a syndicate.

The St. Joseph Brewing Company is building a brewery at St. Joseph, Mo.

Whitecomb Bros., elevator men and grocers at Lawrence, Kan., failed recently.

Mitchell's elevator at Millwood, Man., has been completed, and is receiving grain.

S. Peterson, dealer in grain, feed, groceries and coal at Omaha, Neb., has sold out.

Payne & Co., dealers in flax and excelsior at Dayton, O., have dissolved partnership.

A grain elevator and flour mill is to be built at York, Neb., by the Farmers' Alliance.

The Palmetto Brewing Company of Charleston, S. C., is rebuilding its burned brewery.

E. W. Lockwood & Son, grain dealers and millers at Nevada, Ia., have sold their mill.

A lager brewery is to be erected in Vancouver, B. C., next spring by Doering & Marstrand.

B. W. Ballard, W. L. McGee and others will build a cotton-seed oil mill at Franklin, N. C.

An elevator has been built at Minto, N. D., by McPherron & Fuller, for their flour mill.

Mr. Richters has purchased the Clifton Warehouse at Belmont, Wis., and will build an addition.

The Northwestern Farmers' Protective Association will build a grain elevator at Duluth or Superior.

The Texas Malt and Grain Company has been incorporated at Fort Worth with \$100,000 capital.

W. W. Watson of Winnipeg, Man., has quit the farm machinery business and gone into the grain trade.

S. P. Davison, dealer in grain and groceries at Cainesville, Mo., has been succeeded by Davison & Cain.

The Palmetto Brewing Company of Charleston, S. C., will rebuild its brewery which was recently burned.

The farmers' Elevator Company of Sheridan, Ill., at a meeting of stockholders postponed letting the contract

for building its elevator until January 25, as only one bid had been received.

The Fairmont Elevator Company has been incorporated at Fairmont, Minn., with \$20,000 capital stock.

W. A. Smith, dealer in grain and proprietor of a general store at Loveland, Ia., has sold his general store.

The Planters' Cotton-seed Oil Mill Company will erect a cotton seed oil mill and fertilizer factory at Alexandria, La.

The American Glucose Company of Peoria has abandoned its branch factories at Iowa City, Ia., and Leavenworth, Kan.

The elevators at Baltimore can take care of 6,000,000 bushels of grain per week, it is said, and there is no danger of a blockade.

T. J. Thompson, dealer in grain and feed at Minneapolis, Minn., has been succeeded by the North Star Feed and Cereal Company.

Since navigation closed on the canal at Florida, O., the Florida Elevator and the cribs outside have been completely filled with corn.

The new elevator of the Cerealine Manufacturing Company at Columbus, Ind., has been equipped with the Grinnell Automatic Sprinklers.

To partially alleviate the distress caused by the famine the Mexican Government recently purchased a large quantity of corn for the starving people.

A syndicate has quietly bought up the City of Chicago Elevator Company's 6 per cent. bonds at 60 to 70 cents. It is not known what the move signifies.

D. A. Freed of Redfield, Ia., placed his order with the Des Moines Manufacturing and Supply Company for complete outfit of machinery for his elevator.

For robbing a freight car at Burlington, Ia., a man was recently given two years in the penitentiary. The grain trade needs more convictions like this.

Railroad deliveries of grain for December at New York reached a total of 20,504,890 bushels, against 6,813,530 bushels for the same month of 1890.

The linseed oil mills of this country consume annually about 12,000,000 bushels of flax-seed. If operated at full capacity 20,000,000 bushels would be required.

The Columbia Cereal Company has been incorporated at Chicago. Capital stock, \$100,000; incorporators, Samuel Gross, G. E. Block and Kent W. Blair.

James Quirk and J. W. Jennison have bought the 15,000 bushel elevator and 200-barrel flour mill at Montgomery, Minn., formerly owned by Miller & Phelps.

Frederick Krauss and Mr. Gruenther of Milwaukee, Wis., propose to build a 100,000-bushel elevator and a malting plant with 200,000 bushels' yearly capacity.

The \$1,000 reward offered by the Northwestern Elevator Company for the conviction of the murderer of J. T. Flett, its agent at Port Arthur, N. D., is claimed by several parties.

The Inter-State Grain Company has been incorporated at Chicago to deal in grain, provisions, etc. Capital stock \$100,000; incorporators R. E. Higgs, Nathan Follett and John Tredwell.

The Galveston Wharf Company of Galveston, Tex., is placing 1,450 Grinnell Automatic Sprinkler Heads in its large new elevator. Being in a warm country the wet-pipe system is used.

For a long time the manager of the Northern Pacific Elevator at Wilbur, Wash., had suffered losses of wheat, but recently William Vallery was discovered in the act of taking grain, and the drain ceased.

Orthwein Bros. of St. Louis, recently bought a quantity of No. 3 Hard Wheat at Kansas City which was graded rejected on arrival at East St. Louis. The Merchants' Exchange has taken the matter in hand.

R. H. Ball of LaConner, Wash., has built a large storage warehouse at Whitney on the Seattle & Northern Railway, and the results have been so satisfactory that he will erect several others at his earliest opportunity.

In less than nine hours 210 loaded cars of grain were switched into the Port Richmond Elevator at Philadelphia by one locomotive which also in that time drew out the empty cars, making a total handling of 420 cars.

E. J. Eberhart of Newton, Ia., has added to his outfit of elevator machinery one No. 3 Western Corn Sheller and placed his order for same with the Des Moines Manufacturing and Supply Company of Des Moines, Ia.

Some farmers at Neepawa, Man., attempted to bring their wheat up to grade by putting good wheat in it but failed to get a good price. Hereafter they will sell the grain as it is, and let some one else do the mixing.

A bucket shop in Des Moines, Ia., issued a report January 21 that James G. Blaine was dead, causing great excitement. Business in the House of Representatives was suspended, and the flags on the State House hung at half mast.

Chicago is to have the largest grain cleaning house in the world. The contract has been let by Counselman & Co., to The Heidenreich Company, architects and builders of grain elevators, Metropolitan block, Chicago, for a house with 1,250,000 bushels' capacity. Like Counsel-

man & Co.'s other cleaning house in Chicago, this will have the cleaning machinery on the second floor.

The Farmers' Mutual Benefit Association Elevator Company of Highland, Ill., has increased its capital stock to \$8,000.

When the pressure of grain cars at Baltimore became lighter, the B. & O. Elevators commenced to receive grain from boats. For a time the heavy consignments of grain from the West prevented the receipt of grain from boats.

Anton Hrabek bored holes into wheat cars at Park River, N. D., recently, and was arrested later for stealing. Similar thefts had put the city marshal on the alert and his watchfulness was rewarded by the detection of Hrabek in the act.

The Z. Daniel Commission Company has been incorporated at Augusta, Ga., by Z. Daniel, F. J. Miller, J. K. Nixon and others, to deal in grain, flour, tobacco, fertilizers, etc. Capital stock, \$50,000, with privilege of increasing to \$100,000.

The National Elevator Company of Minneapolis, Minn., not long since bought a quantity of wheat from a farm hand who had stole it from his employer, J. F. Blaisdell, who began suit recently and secured a verdict for \$2,067 against the company.

The North Dakota and Superior Elevator Company was organized at Grand Forks, N. D., February 11 with \$200,000 capital, to build and operate an elevator at West Superior Wis. The stockholders are farmers who belong to the Farmers' Protective Association.

A few Buffalo dealers make a specialty of grain damaged by fire, water or frost, and have by experience learned how to make the most of what otherwise would be a total loss. What cannot be placed in good condition by drying, etc., is sold for chicken feed.

W. E. Coats, the grain dealer at Sparta, Wis., who failed recently, was arrested for embezzling wheat stored in his elevator by E. K. Jones. When the case came to trial no evidence was produced to show that a crime had been committed and Mr. Coats was discharged.

H. G. Harting & Co. started in the grain business at Elwood, Ind., in 1886 and now have an elevator of 20,000 bushels' capacity, equipped with corn shellers and other machinery, located on the Pennsylvania Railroad. The other member of the firm is S. B. Harting.

H. R. Heath & Sons of Ft. Dodge, Ia., recently placed their order with the Des Moines Manufacturing and Supply Company of Des Moines, Ia., for one complete set of irons for oat hullers, including trampot, spindle, bush-horn driver, leveling screw, plates, hand wheel screw, etc.

F. P. Tanner of Ayr, Neb., has recently added to his elevator shafting, journal boxes, pulleys, sprocket wheels, turn heads, link belt, leather, rubber and cotton belting, elevator buckets, etc., and placed his order for all with the Des Moines Manufacturing and Supply Company of Des Moines, Ia.

Waterscheid Bros. of Halbur, Ia., have recently placed in their elevator one new improved corn cleaner with the necessary shafting, pulleys, belting, etc., to set the above machine up in their building, placing their order for all with the Des Moines Manufacturing and Supply Company of Des Moines, Ia.

C. A. Lundblat of Harcourt, Ia., placed his order with the Des Moines Manufacturing and Supply Company for one complete upright horse power and outfit of elevator machinery, including the necessary shafting, pulleys, belting, elevator buckets, etc., to make the outfit complete according to plans.

The Heidenreich Company, architects and builders of grain elevators, Metropolitan block, Chicago, have recently completed a 60,000-bushel elevator at Crete, Ill., for Chas. Horn & Son. It has all modern improvements and is especially designed for economy of space and power and for facility in handling grain.

The Capital City Oatmeal Company of Des Moines, Ia., recently added to their oatmeal mill one Jarrett's Oat Separator and the necessary shafting, pulleys and belting to set the machine up in their building, placing their order for the same with the Des Moines Manufacturing and Supply Company of Des Moines, Ia.

More than a hundred farmers had grain stored with Keener & Pike, the grain dealers of Meredosia, Naples and Jacksonville, Ill., who failed recently with heavy liabilities and small assets. Other creditors of the firm tried to attach 60,000 bushels of their grain but the case was decided in favor of the farmers after a lively contest.

S. V. White, who recently failed through a corn deal on the Chicago Board of Trade and paid his creditors there 50 cents on the dollar, has promised to pay his New York creditors in full with interest as soon as he is able, and they in return have given him a full release, believing his word as good as his bond.

It is now definitely settled that the Texas & Pacific Railroad is to build an elevator here, and it is to be hoped that other railroads will be stimulated to also provide elevators as part of their terminal outfit. It might also be found advisable for the merchants to likewise build an elevator, which would give them facilities for inaugurating a spot business in bulk grain. New Orleans could not be better placed than she is for handling a large

share of the principal products of the country, and our merchants will have only themselves to blame if the traffic goes elsewhere.—*New Orleans Picayune*.

E. D. Cotton & Co. of Extra, Ia., recently placed their order with the Des Moines Manufacturing and Supply Company of Des Moines, Ia., for one large smoke stack, Hancock inspirator, check valve, globe valve, pipe and other fittings.

So far this season about 1,200 cars of grain have arrived at Halifax, N. S., to be shipped to England by the Furness and Donaldson lines of steamers. Oats, peas and barley form the bulk of the grain handled by the elevator. The railway facilities are hardly equal to the task of getting the grain to Halifax, but once there, it is disposed of with dispatch by the elevator and ships.

The *Globe's* Montreal correspondent says that the grain merchants of that city believe the adoption of unduly high standards of grain by the board of examiners was not the result of error in judgment on the part of Western members of the board, but that it was in pursuance of a policy adopted deliberately from year to year to place them and commission men at a disadvantage as compared with Western millers.

Newport News, Va., is being furnished additional terminal facilities by the Chesapeake & Ohio Railway Company. A long freight pier is being built so that the tracks in the neighborhood of the elevator will be relieved to some extent. At present a million bushels are in the elevator and several hundred cars are standing on track. In one week recently about 300,000 bushels of oats were loaded into vessels for London.

John Butler was arrested in Chicago January 2 charged with embezzling \$4,000 while manager of the Midland Elevator Company, of Sioux City, Ia. The arrest was caused by a bank of Le Mars, Ia., which, with other banks, had cashed checks for \$5,000, which he appropriated to his own use in order to protect himself from a threatened freeze out by the other members of the company. The court held that the state had no cause for action and he was discharged.

Joseph M. Watts and Frank F. Axtell, members of the old Chicago Board of Trade firm, Elmsendorf & Watte, were sued by Christopher Strassheim for maliciously suing him for a claim on which he held a receipt, and the case was decided against them, a verdict of \$20,000 damages being given Strassheim. In the Board of Trade panic of May, 1887, the plaintiff was caught for nearly \$8,000, but quietly settled to avoid publicity, and Watte & Co. gave him a receipt for all claims, but afterward began suit for \$3,209.

Latest Decisions.

Delivery of Freight Without Bill of Lading.

Where a railroad company delivers goods to the consignee in violation of the instructions of the shipper to the company's agent not to deliver without a bill of lading, the company is liable to the shipper for the loss thereby sustained by him.—*Foggan vs. Lake Shore & M. S. Ry. Co., Supreme Court of New York*.

Constructive Partnership.

An agreement between two persons whereby one is to furnish money or credit, and the other is to contribute his skill and labor as merchant, conduct the business, make all purchases of goods for the store of such parties as are named by the financial partner, the profits to be shared equally, contains every essential element of a partnership, implying a share in the losses.—*Wiperman vs. Stacy, Supreme Court of Wisconsin*.

Insurance—Accident While Violating Law.

Where an accident insurance policy provides that it shall not cover any accident which occurs while the insured is engaged in any act which is a violation of the law, the Supreme Court of Vermont held in the case of *Duran vs. Standard Life and Accident Insurance Company* that a person who slips upon the frozen ground while engaged in hunting at a time when hunting is unlawful cannot recover under his accident policy.

Sales on Approval.

Where goods are not sold absolutely, but are consigned 'on approval,' the title remains in the seller until the consignee either signifies his acceptance or makes a payment thereon. Where such goods are sold by the consignee the seller cannot recover from him as for money had and received, unless he can show the specific amount received for the particular goods sold, and he cannot recover the goods from the purchasers unless he can show that they had notice of the conditional sale or facts sufficient to put them upon inquiry.—*Glascock vs. Hazell, Supreme Court of North Carolina*.

Payment by Deposit in Insolvent Bank.

A fire insurance loss was adjusted and the amount due agreed upon. The agent of the company thereupon deposited in a local bank the amount due and notified the insured to call and get it. The notice was received after banking hours, and when the insured went to the bank the next day to get his money the bank had failed. The

Supreme Court of New York held, in the case of *Clemmons vs. Livingston County Mutual Fire Insurance Company*, that this did not amount to payment by the company. Had the assured delayed in calling for the money, or had he agreed that it should be left there for him, it would have amounted to payment, but in selecting this method of payment without agreement, the company assumed the risk.

Wheat-Stealing While in Transit.

Under the Missouri statute, which makes stealing from a railroad car grand larceny, without reference to the value of the property taken, it is unnecessary to allege or prove the value of grain alleged to have been taken from a car. The variance between the charge of an indictment that grain was taken from a car on the track of the Wabash railroad and the proof that it was taken from a car on the track of the "Wabash Western," cannot be prejudicial where there is but one railroad in the county where the venue is laid. There being evidence that the grain was taken from the ground near the car, and there being proof of the value, an instruction that in such case the offense would be petit larceny only was properly given.—*State vs. Sharp, Supreme Court of Missouri*.

Lien of Mortgage on Elevator Built on Railroad Right of Way.

A grain elevator, permanent in its structure, built on the right of way of a railroad by a lessee under a lease providing that the lessor might terminate the lease on sixty days' notice, and that the lessee might remove buildings erected thereon by him at any time before the expiration of the lease, is, together with the leasehold interest, a chattel real within the Illinois statute providing that the term "real estate" shall embrace "chattels real," and providing that instruments in writing relating to real estate when filed for record shall be notice to subsequent purchasers, and one holding a mortgage thereon, after two years from its date, need not take possession, as required in the case of chattel mortgages, to retain priority of lien over a subsequent execution creditor.—*Knapp vs. Jones, Supreme Court of Illinois*.

Telegram—Mistake—Illegal Contract.

The Court of Appeals of Montreal has rendered a decision in the case of the Northwestern Telegraph Company vs. Laurence, in which it declares illegal a contract printed on the blanks furnished by the telegraph company. It appeared that while the appellee was in New York he received a dispatch from an employee which, by an error in transmission, caused him to take an unnecessary trip from New York to Montreal. He brought suit for damages, and recovered the actual cost of the trip from New York, and on an appeal by the company this judgment was confirmed. The proof established the fact that the error was due to the negligence of the employees of the company. The appellant set up the plea that the dispatches were sent under a contract which declared that it (the appellant) would not be liable for damages resulting from errors unless the dispatch was repeated, and then only to the amount of fifty times the sum paid for the message. The Court of Appeals decided that this contract was contrary to public policy.

Carrier—Insurance—Advancement.

Where an insurance policy on cotton consigned from Texas to Liverpool stipulated that it was not to cover the common law liability of the common carrier, but that if the cotton were lost while in the care of any common carrier, the underwriter should "advance" to the assured an amount equivalent to the insured value of the cotton so lost, and if the carrier proved liable, the assured should return to the underwriter the amount received from the carrier, the Supreme Court of Texas held, *Gulf, Colorado & Santa Fe Railway Company vs. Timmerman*, reported in the *Railway and Corporation Law Journal*, that a railroad company to whom the cotton was consigned was liable for loss resulting from its negligence, though the bill of lading stipulated that the company should have full benefit of any insurance that had been effected on the cotton, and that "advancement" by the underwriter to the assured of the insured value of the cotton did not constitute a "payment" in such sense as to preclude the assured from recovering from the railroad company the amount of its common law liability.

Parties reconsigning grain at Chicago have been ordered by the Chicago & Northwestern Railway to use blank forms specified by the company and bought at the price and place named by the company. Firms having blanks on hand must throw away their stationery to comply with this request.

Winnipeg received 6,531 cars of inspected wheat during the last six months of 1891. Of the 4,245,150 bushels received, 180,050 bushels, or 4¼ per cent., was No. 1 Hard; 861,900 bushels, or 20 per cent., was No. 2 Hard; 715,650 bushels or 17 per cent., was No. 3 Hard; 170,950 bushels, or 4 per cent., was No. 2 Northern; 742,950 bushels, or 17½ per cent., was No. 1 Regular; 671,450 bushels, or 15¾ per cent., was No. 2 Regular; 227,500 bushels, or 5½ per cent., was No. 3 Regular; 78,000 bushels, or 1¾ per cent., was No. 1 Rejected; 246,350 bushels, or 5¾ per cent., was Rejected, and 167,700 bushels, or 4 per cent., was No Grade. Of the 4 per cent. remaining half was Feed Wheat and half Nos. 1 and 2 Northern. Seventy per cent. of the whole was graded Nos. 2 and 3 Hard and Nos. 1 and 2 Regular.

Fires, Casualties, Etc.

An elevator at Orleans, Neb., was burned January 18.

A brewery at Leetonia, Wis., was burned January 10. Loss \$16,000.

Max Bassitt's broom factory at Elgin, Tex., was burned recently.

Fulmer & Co., hay dealers at Schuyler, Neb., suffered loss by fire recently.

John Walter & Co.'s brewery at Eau Claire, Wis., was damaged by fire January 28. Loss \$20,000.

C. M. Munroe, dealer in grain and hay at Providence, R. I., suffered loss by fire January 19. Insurance, \$2,500.

Edward Thomas, grain dealer at Chapin, Ia., recently had his foot badly injured by it getting caught between two car bumpers.

The Cincinnati Grain Elevator Company's house at Cincinnati, O., was slightly damaged by a fire in a nearby building January 27.

W. R. Sargeant's grain elevator and feed mill at Earlville, Ia., was burned February 5. Loss on building and machinery, \$7,000; on grain, \$1,500.

Dust exploded in the "Niagara C" Elevator at Buffalo recently and started a fire which was promptly extinguished by the firemen after causing a loss of \$200.

The grain elevator of G. & W. Van Middlesworth at Athens, Mich., containing 6,000 bushels of wheat, was burned on the night of February 9. Loss, over \$10,000.

Savage, Beveridge & Co., feed dealers at Richmond, Va., suffered a loss of \$20,000 by a fire which destroyed their stock February 3. Insurance, \$10,000. Loss on building, \$10,000; insured.

The grain elevator and roller mill of George Easterbrook at Tweed, Ont., were burned on the night of January 25. The elevator contained a large quantity of grain. Loss \$60,000; insurance partial.

U. M. Garey, engineer of the McHenry Elevator at Denison, Ia., was caught by a shaft January 30 and whirled around until an employee stopped the engine. Mr. Garey was badly cut and bruised but no bones were broken.

A. L. Crumley's grain warehouse at Pleasant Plains, Ia., was burned January 28, together with the Chicago, Rock Island & Pacific Railway depot. A large quantity of oats and grass seed was burned. Loss \$8,000; insurance \$1,400.

The elevator recently completed at Millersville, Ill., by W. W. Denton was burned January 21. About 8,000 bushels of corn, 5,000 of wheat, and 5,000 tons of hay went up in smoke. Loss \$40,000; insurance \$20,000. The cause of the fire is not known.

On account of the scandal arising from the recent purchase of adulterated flour for the purpose of regulating the price of wheat in the St. Petersburg market and affording relief to famine sufferers in Russia, many members of the municipal council have demanded the resignation and prosecution of the mayor and purchasing committee. For publishing an account of the frauds practiced by the flour merchants the *Novos Vremja* has been threatened with a prosecution for libel.

E. M. Van Tassel's grain elevator in New York City was burned January 16. The fire started in an adjoining stable. The building was six stories high, 100x100 ft., and contained thirty six bins, above which was a floor for machinery. Below the bins were two floors stored with sacks and bagging. There was on hand 25,000 bushels oats and 10,000 bags of wheat, bran and flaxseed. Some carpenters who were at work in the top story narrowly escaped with their lives. A year and two days ago an elevator on the same site was burned and a new building erected in its place. The new house was not yet completed nor had all the insurance been placed when it was destroyed. Loss \$150,000; insurance \$35,000.

OBITUARY

Vincent Hamilton, grain dealer at Toledo, O., is dead.

D. Whiting of D. Whiting & Sons, dealers in grain and flour at Welton, N. H., is dead.

Leonard Daniels, grain dealer and miller at Hartford, Conn., died January 18, aged 89 years.

Joseph L. Dow, who was in the grain business at Wilton Junction, Ia., for a number of years, died at his home in Bedford Ia., recently of pneumonia, aged 78 years. He was buried at Davenport, Ia.

THE ANTI-OPTION BILL.

Senator Washburn has introduced a modified bill that received the approval of C. A. Pillsbury before being laid before the Senate. The senator claims that this new bill provides a way of drawing the line distinctly against legitimate and illegitimate transactions in the sale of products.

The bill, as modified, is directed especially against futures and options where there is no ownership of property. The bill, however, brings all dealers on boards of trade under its provisions, as also under the supervision of the Internal Revenue Department. The dealers in futures and options, so-called, have to pay a license of \$1,000 a year, and also a tax of five cents a pound on every article sold by the pound, and twenty cents a bushel on everything sold by the bushel. This is the same as in the original bill. Every broker or party operating on the Board of Trade has to pay an annual license of \$5 per year. Each one is also required to report weekly to the Collector of Internal Revenue of the district, every sale that has been made by them. There is no restriction whatever placed on sales where there is actual ownership of property. Every person, association and corporation, licensed under this provision, is compelled to record the business transacted, and to make a weekly report to the Collector of Internal Revenue in the district in which the dealer is doing business. The Collector of Internal Revenue is authorized and required, when we shall have reason to believe that the party or parties in whose behalf a vendor contracts of sale shall have been made and were not at the time the owners of such articles contracted, to have them furnish forthwith proof of their ownership of such articles at the time when such contract shall have been made, which for the purposes of this act shall be done by filing with such collector an affidavit of such party or parties alleging such ownership, which shall set forth the fact of such ownership in the factory or mill where such property is stored. Or, if the same shall then be in the possession of any common carrier, railroad, or vessel for transportation, he shall recite name of such carrier and give the number and date of each bill of lading and the amount or quantity of the particular article therein recited. Such affidavit shall further recite the quantity and amount of such article then actually owned by said affiant, and the amount or quantity of all outstanding contracts made by him in his or their behalf by any agent, broker, or dealer on demand of the Collector of Internal Revenue. Such party or parties shall be required to produce such proof of ownership as the Collector of Internal Revenue shall prescribe.

Few persons connected with the grain trade have not commented upon the proposed action of Congress against dealing in options. Following are the opinions of a few:

B. Stern, Milwaukee, miller: Such a law would be the worst possible misfortune that could come upon the farmers, but so far as we millers are concerned we could buy grain much cheaper.

If the bill becomes a law we shall increase the margin between the market price of wheat and what we will lend upon it to 25 cents a bushel. The bill will cripple the trade very much, and make it more expensive for the farmers.—*Cashier Forgan, National Bank, Minneapolis.*

We shall reduce the amount to be loaned upon wheat 10 to 15 cents a bushel. The amount of margin is now 10 cents. The bill will prove injurious to the North west, and it will certainly harm the men it is intended to help.—*H. C. McLeod of the Bank of Nova Scotia, Minneapolis.*

If the actual wheat must be bought before it could be sold, it would require an amount of ready cash each year nearly as large as the national debt to move the crops. Money would be tied up from the instant wheat left the farm till it were brought into the European mill.—*Indianapolis News.*

Charles Marigold, Jr., Milwaukee, miller: The measure was so ridiculous as to be unworthy of consideration. "Wheat would be selling to day for 30 cents," he said, "if it were not for dealing in futures. If we couldn't sell our flour for future delivery I'd like to know what we would do these days."

The Chicago Board of Trade is strongly in favor of the first clause of the bill in its reference to options. There is a great amount of trading done of an illegitimate character, which the Board would like to stop. Moreover, it will welcome all aid in that direction.—*H. H. Aldrich, Chicago.*

A. C. Loring, Minneapolis, of the Northwestern Consolidated Milling Co.: As a general proposition I am in favor of some bill which will limit future dealing to the amount of grain actually raised; but the Washburn Bill makes no provision for future selling, and would be disastrous to legitimate dealers as well to farmers.

To do away with selling property for future delivery would limit the business of buying and selling to those who want the cash property, which would greatly reduce the number of trades. Any one knows that the greater number of buyers and sellers we have for a commodity the better price it will bring.—*H. C. Hall, grain dealer, Paxton, Ill.*

The New York Produce Exchange heartily approves of Section 1 of the measure defining options. The evils arising from trading in options, as there defined, are well known, and any legislation which would repress such practice would be welcome. But the bill, in Section 2, proposes to restrict trading in futures, which is a very different form of trading, and which includes contracts continually used by all classes of merchants and dealers and bankers, who deal in the products men-

tioned in Section 3 in a perfectly legitimate way. In all the future contracts on the Exchange, the actual delivery of the article sold is provided for, and that is the basis on which the contract rests.—*H. B. Nieland, New York.*

The effect of the passage of such a bill would certainly be to take something off the prices of the farm products, possibly 15 or 20 cents. The immediate effect is to alarm the trade. If the future delivery system is to be done away with, there is no knowing what the result may be. Commission men, speculators, elevator people and banks are all at sea, all more or less disturbed.—*W. R. Linn, Chicago.*

D. R. Sparks, Alton, Ill., miller: I am of the opinion that the option dealing in what has had a demoralizing effect upon that article, which has tended to lower prices. The law to be effectual must draw the line distinctly and clearly between a legitimate purchase where the stuff is to be delivered, and that class of sales and purchases where it can easily be shown there was no intention of delivery.

Wm. Faist, Milwaukee, miller: That bill is all right for millers, as we could get wheat at our own price, but it would be a bad thing for business generally. It would produce general stagnation. It is the element of speculation that gives life to business, keeps the wheels moving and the country active and prosperous. European countries are just adopting our method of trading in options, and it is not wise for us to abolish it.

It is time that the sober sense of Congress asserted itself against the anti-option bill. It is not to be supposed that a body of men possessing traces of common intelligence would seriously think of passing such a measure, but the absurd investigation protracted by the agricultural committee and the certainty that that committee will recommend the bill have already done considerable harm in unsettling business interests, which are always super-sensitive. What the business of this country needs is to be let alone.—*Chicago Herald.*

John Whitaker, pork packer of St. Louis, before the Committee on Agriculture, said: "Wipe out, if possible, the short seller, the non-owner—in other words, the American anarchist. That is what he is. I say it soberly. The short seller is to-day the anarchist of America the worst one we have, and he will make the farmer come down and sell his stuff under the red flag. The wheat exported this year probably averaged in price 95 cents a bushel, and if this proposed law had been in force it would have brought considerably more than \$1 a bushel."

I deny that the sale of property for future delivery has a tendency to depress prices, and if I had the time I could easily demonstrate to your satisfaction the correctness of my position. But leaving that out of consideration, this would be legislation in favor of a class and to the detriment of another class. The consumers of the country are certainly quite as numerous and quite as needy as the producers, and they are fully as much entitled to whatever may insure to their benefit from the operation of the laws of trade, free and unrestricted, as the producer, or any other class of our people are.—*E. P. Bacon, Milwaukee.*

If markets were left to supply and demand solely, and only those bought wheat who actually wanted it for milling or export, prices, especially under the pressure of large crops, would undoubtedly remain limp and helpless, very much as we find the truck and pulse crops in their season. The more people that deal in agricultural products, whether buyers or sellers, the better for their value. The larger clientele the more certain always to have a contributory force to sustain and hold prices. Free and open markets have a tendency to enhance values. That is the result and finality of speculation and active dealing.—*P. H. Magill, President of the Baltimore Corn Exchange.*

In its protest to Congress against the passage of the Washburn Anti-Option Bill the Minneapolis Chamber of Commerce states, "As we view this proposed law, its purposes are: To destroy the credit of some of the most extensive institutions in the country. To change the entire system of handling the enormous grain crops of the country. To substitute speculation and uncertainty for legitimate business and certainty. To seriously affect the prices of America's great staple productions and revolutionize the approved business methods of the great trade centers and bring to disaster the producer and those who assist him in handling and storing his crops and in placing them to his best advantage upon the markets of the world."

While it is very easy to stigmatize a purchase or sale of May wheat in the preceding November as gambling, it is difficult to prove such a charge. Gambling is betting on hazards, whose results are not only not calculated but cannot be calculated with any reasonable degree of certainty. Thus, a person hazards a certain sum on the chances of a pair of dice turning up double sixes, or on the chances of a roulette-ball dropping into a hole numbered say 25. The transactions of a board of trade are wholly different in nature and result. They establish prices for the day, of farm products, based on the quotations of the markets of the world; and they also give an opportunity to people who look forward to deal in future supplies at prices based on the expectations of crops and consumption. These expectations are framed mainly from historical records, and are always within reasonable limits. But the main point to their advantage is this, that they all tend to the ultimate purchase of farm products, and the average of them all is in the direction of

the average market price, which is established by producers and consumers all over the world. In other words, there are as many bulls as bears—as many people putting up prices as there are people depressing them; and therefore the farmer cannot be hurt. and, as matter of fact, is not hurt.—*Henry Clews in February Lippincott's.*

Recently one of the bankers of Chicago told me there was more money tied up in margins on these future sales than would pay for the entire visible and invisible supply of wheat three times over. The heaviest visible supply of wheat we ever had was 62,000,000 bushels. If the invisible supply was another 62,000,000 bushels, then \$124,000,000 would move this entire crop at \$1 a bushel. Now the consumption of the world has overtaken the production. If wheat brought \$1.70 per bushel in Great Britain for the nine years ending in 1874, why should it not bring a good price now with lessened product per capita? It is, I think, because of the offering of unlimited fictitious amounts on the markets without any regard to the real product.—*C. Wood Davis, Kansas.*

If the markets were left entirely to the miller, as would be the case under the proposed bill, we would have it thrown onto the market for sale, to be purchased by the millers at times when they would be utterly unable to take the wheat in such quantities as were offered. The miller would be utterly unable to take the wheat in the fall of the year, because there would be so much offered. Ordinarily, the millers could not buy 25 per cent. of the wheat, and it is at such times that capitalists and elevator people step in and purchase this overflow, filling their elevators, selling remote futures in the markets of the world that offer the best prices. Now, under this Washburn bill there would be no opportunity for the capitalist to hedge his purchases, unless made to millers, and they are financially unable to buy one-tenth part of the crop.—*H. W. Pratt, Minneapolis.*

Options are entirely different from trading in futures. The latter are straight contracts for the purchase or sale of grain to be delivered within a stated time, and are as binding as a promissory note or any sort of contract. The system of trading in futures, even if it does consist of pure speculation, enables a handler of flour and grain to carry on his business with no element of risk in it. He can buy grain, accumulate it in storehouses to any extent, and by selling for future delivery against it, he is enabled to do a perfectly safe business without endangering his capital. His narrow margin of compensation for handling is all he wants. The speculative public takes all the risk of declining prices. He can be independent of buyers, and sell them grain only when he gets his own price. He need not sacrifice it at any price which happens to be offered.—*Kansas City Star.*

The passage of the bill would greatly restrict speculation, and anything that curtails speculation and restrains trade tends to lower values. This applies to real estate, dry goods, grain, provisions, coffee, cotton, stocks, and in fact everything. It is absurd to say the bill will not lessen the number of buyers, because nine-tenths of the buyers are speculators, who buy to-day with a view to selling to-morrow. Bankers who now advance within a few cents of Chicago price, because there is a broad, active market where they can protect themselves, will not advance within 40 per cent. of quoted price for cash wheat when the market is narrow and restricted and transactions are based only on actual consumptive demand. The country elevator man, who is now willing to pay the farmer within a cent or two of Chicago or Duluth prices less freight, will not pay within 20 cents of quoted price, because he will have to take the chances and carry the grain until it goes into actual consumption.—*F. J. Kennett, Chicago.*

Undoubtedly the present methods of handling grain and produce are far superior to those in use a few years ago, and the value and use of the option or future sales of grain and produce cannot but be appreciated by those who have given the subject careful thought. What is to be deprecated most of all is the fact that unscrupulous operators can, by abusing the privilege which the option affords, so manipulate the price of various products as to greatly depress values by overselling the market, should go to the producer as a direct result of its free use. We are averse to the placing of restrictions upon the free course of trade or the legitimate use of business methods? but the man or company of men who can succeed in enacting a measure that will eliminate the evils brought about by illegitimate use and advantage taken of what would otherwise be of great advantage to commerce will be entitled to everlasting gratitude from their countrymen.—*Valley City Milling Company, Grand Rapids, Mich.*

A prominent member of the Baltimore Corn Exchange writes: "Short selling" can have no meaning without its antithesis, "long buying," and either, used separately, is a misnomer. The only expression that conveys full and comprehensive meaning is "term contract." That includes the two parties, buyer and seller. "Short selling" means "long buying," the seller must find a buyer. One is the complement of the other, and when they meet trade begins, and trade makes business and active markets. Dealing in "term contracts" is perfectly legitimate, as much as dealing for cash and spot delivery. The enormous volume of agricultural products to be handled, meeting the anticipated wants of customers and providing for tonnage in the world-wide distribution, compels "term contracts." It is simply buying and selling, that is all. The terminal period of the contract is immaterial, whether one day, one month or one year. The suppression of

'term contracts' would be the negation of business, and without doubt the trend of values would be toward a lower level. No one will fish in a stagnant pool. There could be no life, no animation in a business compressed to merely necessitous wants."

The passage of such a bill would take 10 cents, and possibly 20 cents off the price of wheat. It would embarrass every one in the trade—the bona fide producer, the merchant who handles and the banker who aids in the movement of produce by making advances. As for the views of the bankers, the class without which the crops could not be moved, a petition was sent from here to Congress to-day signed by eighteen of the big institutions, protesting against any such legislation. Legislation of the sort proposed by these mills, either the Hatch or the Washburn, would harass all the elevator owners and close up-half the packing houses. It would cripple the capacity for buying wheat in the country, and storing it here.—*John Cudahy, Chicago.*

Do the Minneapolis millers really wish to have Congress free them from all competition in wheat buying in the three great spring wheat states of the Northwest? Should the Washburn bill become a law, that is just what would happen in those states. The farmers would be at the mercy of the Minneapolis millers, who would be in a position to put down prices for wheat to suit themselves. Not only that, but millers elsewhere would be at the mercy of the Minneapolis millers who would charge outsiders just what they pleased for wheat. The farmers in those states would lose from 10 cents to 20 cents a bushel on their wheat under that law, all of which would go into the pockets of the Minneapolis people.—*Milling World, Buffalo.*

I am willing to assist stopping gambling in grain, but this bill won't do it, and I want to tell you now that were this bill to become a law to-morrow it would create a greater panic than has ever seen on the face of the earth. Option men who now have wheat for future delivery would come to me and others holding the grain, and tell us that they could not take it now and the law forbade them to buy it on options. They would therefore be compelled to repudiate their contracts. Men like myself would have to crowd the wheat on the market and demand our money. I have got \$4,000,000 of cash wheat on hand, and I have been in trouble ever since this bill came up. So have all others like myself, and the market is in such a shape that for the past seven days I have been unable to sell a bushel of wheat in Buffalo, New York or Liverpool without a loss. Your bill is not what is wanted. I can't dictate a bill to you. To do so would ruin me. But I will help you, and you certainly need help. The large farm owners are against it and the president of the Minnesota Farmers' Alliance is against it, not because he fears it will harm me, but because he knows it will not benefit the farmer.—*A. J. Sawyer, Minneapolis, before the Agricultural Committee.*

Senator Washburn's bill may or may not become a law; it may or may not be constitutional; it may or may not remove the rats without destroying the entire edifice in which they lurk. But it is apparent now, and has been apparent for years, that the general public, the farmers, the millers and the legitimate business men have grown weary of generations of Hutchinsons and Partridges, and demand their removal from the domain of legitimate commerce and their relegation to their proper sphere, the realm of gambling pure and simple. It demands that they be handled by police regulations, and not by the flabby rules of commercial bodies. An expression of this sentiment is inevitable, if not through Mr. Butterworth or Mr. Washburn, through some one else. It has got to come, and come soon. If legitimate grain handlers—elevator men and actual dealers—desire to save themselves from the ruin of the sweeping and radical measures, they themselves should improve the present while it is in their power, and drive out the rats from among them. If they can do this, they can save themselves and the house they live in. No one will molest them further. If they cannot, which seems probable, they must expect that they will suffer with those whom they have admitted among them.—*Northwestern Miller.*

RECEIPTS AND SHIPMENTS AT CHICAGO.

The following table, compiled by George F. Stone, secretary of the Board of Trade, shows the receipts and shipments at Chicago during January, 1892 and 1891, of seeds, hay and broom corn:

Receipts.	Timothy lbs.	Clover, lbs.	Other grass seeds, bus.	Flax- seed, bus.	Broom corn, lbs.	Hay, tons.
1892.....	1,295,236	506,910	268,135	679,766	810,750	24,340
1891.....	3,190,552	1,308,409	807,771	330,562	1,529,290	18,211
Shipm'ts.						
1892.....	2,299,800	1,235,543	164,843	466,201	1,591,978	3,538
1891.....	1,566,269	2,615,084	1,809,214	260,261	1,025,403	1,896

The United States exported 3,160 tons of hay in December, against 2,946 tons in December, 1890; and during the year, 28,112 tons, valued at \$471,112, against 37,240 tons, valued at \$577,182, during the year before.

NEW YORK'S EXPORT GRAIN TRADE.

William E. Ferguson of the New York Produce Exchange, who is a recognized authority on the statistics of the grain export trade of that port, has just made his annual report. The table compiled by Mr. Ferguson shows the enormous increase of the grain export trade of New York and the dwindling away of the American marine. The American merchant flag is being driven off the seas by Great Britain. The completeness with which steam has superseded sail in the ocean carrying trade may be seen from the fact that of 1,238 vessels which carried cargoes of grain from this port during the year 1891 only fifteen were sailing vessels. There were shipped from New York during 1891 68,222,528 bushels of American grain to feed the hungry mouths of Europe.

Not included in this were 260,377 bushels of buckwheat, which appears in the statistics for the first time, buckwheat never having been exported before in any quantity. There were 47,706,285 bushels of wheat, 11,331,572 bushels of corn, 4,401,513 of rye, 2,707,773 oats, 1,943,018 of barley, and 2,188,366 of flaxseed. This 68,483,905 bushels of grain was carried in 1,238 steamers and 15 sailing ships—five British, five Italian, four Australian and one Norwegian—which among them loaded 600,904 bushels. Of the 1,238 shiploads only 25 were carried under the American flag. There are only four American steamers left in the grain-carrying trade. They are the old passenger steamers of the late American line, which used to run from Philadelphia under control of the Pennsylvania Railroad. These four lonesome steamers—about all that is left of the American transatlantic merchant marine—made twenty-five voyages during the year.

Great Britain has the lion's share of the world's carrying trade, and no less than 792 shiploads left this port under the British flag last year. This was nearly two-thirds of the entire number. Next came Germany, with 143 ships; Holland with 74; Belgium with 61; France with 34; Norway with 29; Denmark with 25; Italy with 24; Portugal with 16; Spain with 10, and Austria with five. Of the grand total of 68,483,905 bushels of grain America carried only 1,273,724 bushels. The British lion's share was 48,569,305 bushels. Germany carried 5,117,323 bushels; Belgium, 3,379,988 bushels; Holland, 2,483,692 bushels; France, 1,711,706 bushels; Norway, 1,667,029 bushels; Italy, 1,410,909 bushels; Denmark, 982,770 bushels; Portugal, 881,797 bushels; Spain, 617,484 bushels; Austria, 129,262 bushels.

The shipments of American grain to Europe during the year 1891 were larger than they have been for any year for ten years past, as the following comparative table prepared by Mr. Ferguson will show:

Year.	Totals.	Year.	Totals.
1881.....	72,376,312	1887.....	52,354,487
1882.....	46,162,739	1888.....	25,159,064
1883.....	48,457,945	1889.....	37,406,259
1884.....	45,393,787	1890.....	44,592,559
1885.....	42,163,264	1891.....	68,483,905
1886.....	52,503,371		

UNITED KINGDOM CROPS.

The official report issued by the British Board of Agriculture shows the wheat, barley and oats crops for the last three years to be as follows:

WHEAT.			
	1891.	1890.	1889.
	Bushels.	Bushels.	Bushels.
England.....	68,694,456	69,142,417	69,336,374
Wales.....	1,461,740	1,712,541	1,672,557
Scotland.....	1,971,067	2,199,526	2,193,642
Great Britain.....	72,127,263	73,354,484	73,202,773
Ireland.....	2,637,600	2,637,600	2,680,000
United Kingdom.....	75,992,034	75,992,084	75,882,773

BARLEY.			
	1891.	1890.	1889.
	Bushels.	Bushels.	Bushels.
England.....	60,900,824	62,250,366	56,036,582
Wales.....	3,438,620	3,621,793	3,548,138
Scotland.....	7,789,651	8,061,642	7,842,034
Great Britain.....	72,129,095	73,933,801	67,426,754
Ireland.....	7,131,000	7,134,000	76,570,000
United Kingdom.....	81,064,801	81,064,801	75,033,754

OATS.			
	1891.	1890.	1889.
	Bushels.	Bushels.	Bushels.
England.....	69,786,175	72,104,034	68,109,136
Wales.....	7,698,529	8,116,344	8,150,208
Scotland.....	34,901,557	39,907,668	37,182,654
Great Britain.....	112,386,261	120,188,046	113,441,897
Ireland.....	49,828,000	49,628,000	48,613,000
United Kingdom.....	170,016,046	170,016,046	162,054,897

The United States wheat crop in 1891 was the largest per capita ever raised by any country.

IMPORTS INTO THE UNITED KINGDOM.

According to the report of the British Custom House the United Kingdom imported wheat during the last three years from the various countries as follows:

Twelve months ending Dec. 31.			
Wheat—	1891. Cwts.	1890. Cwts.	1889. Cwts.
Russia.....	14,552,905	19,389,025	21,321,628
Germany.....	714,460	1,100,846	2,538,629
France.....	126,004	590	126,440
Turkey.....	1,509,903	900,258	667,372
Roumania.....	1,088,330	4,653,735	2,862,460
Egypt.....	936,687	425,455	325,150
United States—Atlantic	17,496,890	6,427,253	5,044,960
“—Pacific.	6,698,065	10,773,810	11,971,290
Chili.....	2,119,875	24,000	572,953
British India.....	13,005,785	9,111,582	9,217,332
Australasia.....	2,085,671	3,057,693	1,406,060
North America—British	3,173,840	1,128,349	1,168,320
Sundries.....	2,804,547	3,481,584	1,379,650
Totals.....	66,312,962	60,474,180	58,602,271

The imports in hundredweights of other breadstuffs during the same periods were as follows:

	1891.	1890.	1889.
Barley, Cwts.....	17,465,698	16,677,988	17,415,943
Oats.....	16,600,394	12,727,186	15,999,060
Peas.....	2,419,381	1,842,488	1,688,512
Beans.....	3,672,413	3,844,918	3,585,473
Maize.....	26,825,625	43,437,834	36,203,069
Malzemeal.....	55,700	57,145	24,066

NEW INSPECTORS AT KANSAS CITY, MO.

There is war between the State Grain Inspectors and the Kansas City Commercial Exchange. The authority of the Railroad and Warehouse Commissioners has been set at defiance and the Commissioners have been informed that their local inspectors of grain are out of an occupation. The exchange has started an inspection department of its own and proposes to do the work that is usually assumed to be entirely in the hands of the State officials. The question of who has the right to inspect the grain coming in and going out of the Kansas City elevators will have to be decided by the courts. February 12, the inspectors of the Commercial Exchange commenced doing the work and the State inspectors are idle.

For a long time there has been much dissatisfaction and friction between grain merchants of the Commercial Exchange and the State Grain Inspectors. Charges of inefficiency, political machinery, etc., have been applied to the Missouri inspection department. It is charged by prominent grain dealers that inefficiency has rendered the State officials the laughing stock of the trade at home and abroad to the great detriment of the local grain market.

On the other hand the State inspectors and the Railroad and Warehouse Commissioners charge that there is much rottenness in the Kansas City grain methods and that the objection to the state inspection is based solely on the fact that the inspectors cannot be manipulated to suit the wishes of the grain mixers who are handling the elevators. They say the elevator men try to get grain inspected at too low a grade when it is going into the elevators and at too high a grade when it comes out.

A CENT ADVANCE ON WHEAT.



ITEMS FROM ABROAD

Italy has rejected the proposal to reduce the duty on wheat.

Rust damaged wheat in Australia last year to the extent of \$11,000,000.

Dublin, Ireland, in 1891 imported 3,240,000 bushels of wheat, and 2,400,000 bushels of corn.

Spain imported during November 312,000 bushels of wheat, and 22,000 240 pound sacks of flour, and exported 16,000 sacks flour.

India's crops are short in many districts, but the prospect for an excellent crop next year is good, as the sown fields are generally in good condition.

The French Millers' Association gives the wheat acreage in France at 12,617,000 this season, against an average for the past ten years of 17,230,000 acres.

Denmark exported 76,800 tons of cereals and 153,000 240 pound sacks of flour in the year 1890, against 60,700 tons of cereals, and 183,400 sacks of flour in 1889.

Switzerland imported during the third quarter of 1891 3,320,000 quarters wheat and 36,000 240 pound sacks of flour, and exported in the same period 10,000 sacks of flour.

Owing to the scarcity of seed the peasants of Russia will not harvest a full crop this year. No great exports are to be expected from that country for some time to come.

Russia intends to allow the export of flour, on condition that millers import an equal quantity of wheat. The object is to enable Russian millers, especially at Odessa, to retain their foreign trade with Egypt, Turkey and England.

Corn shipments to the continent of Europe in the period from September 1 to January 9, were from the United States and Canada, 685,000 quarters, from South-eastern Russia, 423,000 quarters, and from other countries, 24,000; total, 1,132,000 quarters.

The "Journal of the Russian Minister of Finance" has published a compilation showing that the five cereal crops, together with the potato crop have yielded fully sufficient to provide for all purposes and leave a surplus of 45,000,000 pods (about 3,000,000 quarters) at the end of the season.

No rain had fallen in Durango, Mexico, for four years until January 22 last. The state of Durango has purchased and distributed 25,000 bushels of corn to the citizens of Durango City. It is estimated that 500,000 bushels will be required to feed the starving people until the next harvest.

The United Kingdom imported during the period from September 1 to January 9, from the United States and Canada, 1,328,000 quarters corn; from South-eastern Russia, 549,000 quarters; from the Argentine Republic, 6,000 quarters; from other countries, 94,000 quarters; total, 1,977,000 quarters.

Holland imported 2,592,000 bushels of wheat and flour in its wheat equivalent during December. In November the imports were 2,368,000 bushels of wheat, 1,268,600 bushels rye, and 94,000 240 pound sacks flour, and the exports, 1,250,000 bushels wheat, 334,000 bushels rye, and 38,000 sacks flour.

Austro-Hungary in November exported 152,000 bushels wheat, 1,028,370 bushels rye, 2,641,770 bushels barley, 741,000 bushels oats, and 1,045,700 bushels corn, and imported 64,000 bushels wheat, 8,500 bushels rye, 17,700 bushels barley, 28,500 bushels oats and 85,700 bushels corn, in the same month.

Antwerp, Belgium, imported last year 49,752,000 bushels wheat, 3,968,500 bushels rye, 5,900,000 bushels barley, 4,873,500 bushels oats, and 7,500,000 bushels corn, against 33,664,000 bushels wheat, 318,850 bushels rye, 7,080,000 barley, 6,426,000 bushels oats, and 10,260,000 bushels corn the year before.

Hull, England, imported last year 2,240,084 quarters wheat, 476,808 quarters barley, 390,392 quarters oats, 444,932 quarters corn, and 729,914 quarters flaxseed, against 2,034,538 quarters wheat, 514,954 quarters barley, 198,737 quarters oats, 447,431 quarters corn, and 659,522 quarters flaxseed the year preceding.

A heavy crop of wheat is being threshed in the Argentine Republic. Out of 800,000 tons, 600,000 are estimated as available for export after January 1. The wheat is of good quality, as is also the corn crop of 1,000,000 bushels. The production of flaxseed is very much below the average, but the quality is excellent.

Belgium imported 4,232,000 bushels of wheat, and 74,000 240 pound sacks of flour in December, and exported 1,744,000 bushels wheat, and 107,000 sacks flour. During November the imports were 3,648,000 bushels wheat, 565,700 bushels rye, 1,116,600 bushels barley, 64,000 240-pound sacks of flour, and 9,800 tons of other cereals. The exports for the same month were 2,096,000 bushels

wheat, 702,800 bushels rye, 366,700 bushels barley, 117,000 sacks flour, and 9,550 tons of other cereals.

Italy imported during November 1,728,000 bushels of wheat, 21,400 bushels corn, 116,600 bushels barley, 10,450 bushels oats, and 900 240-pound sacks of flour, against 1,600,000 bushels wheat, 174,200 bushels corn, 41,600 bushels barley, 66,500 bushels oats, and 600 240 pound sacks of flour during November, 1890. The exports during November were 2,720 bushels wheat, 72,200 bushels corn, no barley, no oats, and 250 sacks of flour, against 1,120 bushels wheat, 61,400 bushels corn, 25,000 bushels barley, 950 bushels oats, and 200 sacks of flour during November, 1890.

Glasgow, Scotland, imported last year from the United States and Canada 510,605 quarters wheat, 1,317,415 240-pound sacks flour, 126,939 quarters barley, 19,027 quarters oats and 317,163 quarters corn, against 412,490 quarters wheat, 1,281,347 sacks flour, 11,487 quarters barley, 34,561 quarters oats and 633,072 quarters corn, the preceding year. That Scotland imports the bulk of its foreign supply from America is shown by comparing the quantities given above with the total imports into Glasgow in 1891, which were, wheat, 525,081 quarters; flour, 1,504,123 sacks; barley, 261,507 quarters; oats, 189,078 quarters, and corn, 401,430 quarters; and in 1890, wheat, 504,843 quarters; flour, 1,592,810 sacks; barley, 280,982 quarters; oats, 154,774 quarters, and corn, 668,353 quarters.

WATERWAYS

A steamship line will, it is said, be established between Boston and ports on the Gulf of Mexico.

Canadian shippers and others interested are endeavoring to have the Dominion Government reduce the canal tolls still further.

In January 56 vessels left Philadelphia laden with 4,201,288 bushels of corn, 209,653 bushels of wheat and 165,000 bushels of oats.

Sailing vessels appear to be coming into favor in Great Britain. In the past year or two a large number of new sailing ships have been built there.

Two new lines of steamers have been established between Philadelphia and foreign ports. It is expected that the commerce of the port will revive.

Two steamers have been engaged for a steamship line between Philadelphia and the Bristol Channel, England, and others will be engaged if needed by the trade.

Out of 1,238 loads of grain shipped from New York last year only 25 went in American bottoms. English vessels carried the bulk of the 68,223,528 bushels shipped in 1891.

Representative Chipman of Michigan has introduced a bill in Congress to provide for the construction of a ship canal across the state of New York from Buffalo to the Hudson River.

The American Steel Barge Company is building a number of whaleback vessels at West Superior, Wis., and is organizing a company to purchase and operate them when completed.

Panama papers have published paragraphs alleging that the work of constructing the Nicaragua Canal is being performed in a perfunctory manner, no more being done than is necessary to keep it a live issue.

Chicago received last year by the Illinois and Michigan Canal 306,404 bushels wheat, 1,739,806 bushels corn, 2,429,957 bushels oats, 75,265 bushels rye and 7,649 bushels barley; total, 4,559,001 bushels grain.

No effort has as yet been made by the city of Buffalo to have a great ship canal constructed to the East. Why not? Because such a canal would ruin the railroad grain elevator trust, which is one of that city's most prosperous concerns.

A line of steamboats will be operated on the Missouri River next summer by the farmers of Charles Mix County, N. D., who have hitherto been compelled to haul their grain forty or fifty miles to the railroad for shipment.

The House committee on foreign and inter-state commerce has requested the President to negotiate with Canada to secure the speedy improvement of the Welland and St. Lawrence Canals to the depth adopted for the United States canals.

Forty-five vessels are on the stocks in lake shipyards. When completed they will add 76,000 tons to the tonnage of the great lakes. Their value is \$4,896,000. Of these forty-five vessels thirty-two are steel and forty steamers and nearly all of them are freight carriers.

New Orleans promises to become a great grain exporting point for the Western country. If vessels could obtain profitable cargoes from foreign ports they would be willing to accept lower rates on grain shipped from New Orleans. The time may come when vessels will unload hides, tallow, coffee, sugar, fruits, lumber, and other

products of South America at New Orleans. If other ports along the Gulf coast can secure deep water so much the better.

Senator Davis of Minnesota has introduced a bill appropriating \$1,000,000 toward the construction of a ship canal around Niagara Falls on the American side connecting Lakes Erie and Ontario, which, when completed, is to cost \$46,000,000, and be of sufficient depth to float the largest lake vessels.

At their nineteenth annual convention the New York State Grangers on February 6 passed a resolution asking the representatives of New York in Congress to use their influence and votes in support of any measure favoring a ship canal around Niagara Falls and the further construction of a deep waterway from Lake Ontario to the Hudson River.

Will the Canadian Government refund Welland Canal tolls on grain originally shipped to Montreal or some point East, which has been transhipped at an American port? Last year such refunds were made and the Canadian officials may perhaps continue the practice. The question will be answered practically when navigation opens in the spring.

The Illinois and Michigan Canal Commissioners have reported that during 1891 the rebuilding of the aqueducts has been completed, that extensive repairs are under way at Henry and Copperas Creek locks in the Illinois River and that the general condition of the canal is better than for years past. The receipts last year were \$79,005 and the disbursements \$79,300.

S. A. Thompson, secretary of the Duluth Chamber of Commerce, addressed the House Committee on Railroads at Washington February 1 in favor of a deep channel from the great lakes to the sea. Captain Kingman, engineer in charge of the Oswego (N. Y.) district, explained the surveys and cost of the ship canal suggested to connect Lake Erie with the Hudson River.

The cost of loading and unloading is a very important consideration in water transportation. The simple moving of a cargo from one port to another can be accomplished very cheaply. It is not so with the railway, however, for the expense of hauling a loaded car is many times what it costs to load and unload the car. At present the cost of water transportation is very low and will probably not be reduced materially in the future; but the cost of moving freight by rail is great, so great that there is room for reduction. When electric engineering has reached such a development that railways can be successfully operated through the agency of electricity then we may look for cheaper rates. The day may even come when the railway can carry freight cheaper than the steamer.

The New York Board of Trade and Transportation listened to an address January 13 by Prof. Haupt favoring the construction of a ship canal across the state of New Jersey for the benefit of the commerce of New York and Philadelphia. These ports now have deep water communication via the Atlantic Ocean, but it is expected that by spending several million dollars on the old Raritan Canal, a saving in freights would be effected between the two cities. At the same meeting Thomas Martindale of Philadelphia spoke in favor of a comprehensive interior waterway connecting New York Bay, the Delaware River, Philadelphia, Baltimore, Norfolk, Savannah and Jacksonville, Fla. All of these ports now have deep water communication, and it is a question whether a narrow waterway costing several hundred millions of dollars would be preferred by shipmasters to the broad Atlantic. The present generation will probably not live to see the fruition of this visionary scheme.

Churchill, on the west coast of Hudson's Bay, has been proposed as an outlet for the commerce of Minnesota, Dakota and the Canadian Northwest. Many things must be done before the Hudson's Bay route will become possible. Railroads will have to be built radiating from Churchill as a center to reach the now undeveloped country to the South and West. Even though the railways were built the cold in that country would prevent ships sailing except in midsummer. To reach the Atlantic vessels would have to pass through a strait in latitude 68 degrees north. Nothing is to be hoped for in that direction and the Canadian Government would do well not to subsidize railways running to Hudson's Bay, but would find it more profitable to continue the deepening of the St. Lawrence and Welland Canals so that deep water can be had at the same time that the work in progress on the Sault Ste. Marie Canal is completed. With such canals grain-laden vessels could clear from Fort William, Duluth and West Superior and pass eastward through a magnificent system of waterways.

The United States exported 4,715,576 pounds of clover seed in December, against 2,816,322 pounds in December, 1890; and during the year 25,766,508 pounds, valued at \$1,879,232, compared with 27,541,024 pounds, valued at \$1,894,742, during 1890.

European ports received in December from the Pacific Coast of the United States 1,796,252 cents wheat, of which San Francisco shipped 1,681,081 cents, and also 71,962 cents barley and 51,787 cents rye, in 31 shiploads. Washington contributed 87,268 cents wheat in two cargoes and Oregon one cargo of 27,713 cents. During the year 19,590,085 cents wheat and 794,676 barrels of flour were exported, against 15,769,075 cents wheat and 667,870 barrels flour in 1890.

LATE PATENTS

Issued on January 5, 1892.

CENTRIFUGAL SEPARATOR FOR NUTS, GRAIN, ETC.—Benton H. Vellines Norfolk, Va., assignor to the Norfolk, Va., Peanut Company, same place. (No model.) No. 466,730. Serial No. 393,609. Filed May 21, 1891.

POWER MECHANISM FOR BALING PRESSES.—George O. Vernon, Albany, Ore., assignor of one-half to Harry Ward Price, same place. (No model.) No. 466,731. Serial No. 390,932. Filed April 29, 1891.

HAY PRESS.—Lawson G. Peel, Hazelhurst, Miss. (No model.) No. 466,623. Serial No. 396,497. Filed June 16, 1891.

ELEVATING APPARATUS.—Alexander Miller, New York, N. Y., assignor to Brown & Miller, Jersey City, N. J. (No model.) No. 466,571. Serial No. 365,467. Filed Sept. 19, 1890.

GRAIN AGITATOR FOR SEPARATOR SHOES.—Charles A. Kelley, Ripon, Cal. (No model.) No. 466,726. Serial No. 399,373. Filed July 13, 1891.

CLEANER, SHELLER, AND PEELING MACHINE.—Carl Franzel, Domstadt, Austria Hungary. (No model.) No. 466,402. Serial No. 386,242. Filed Oct. 15, 1890.

Issued on January 12, 1892.

SEPARATOR.—Abel Kleinstiver, Petrola, Canada, assignor of one-half to B. S. Van Tuyl, same place. (No model.) No. 467,133. Serial No. 276,775. Filed June 11, 1888.

AUTOMATIC WEIGHING MACHINE.—Henry Richardson, Litchfield, England. (No model.) No. 467,021. Serial No. 390,472. Filed April 25, 1891.

Issued on January 19, 1892.

FANNING MILL.—Ninian M. Newkirk, Chatham, Canada. (No model.) No. 467,380. Serial No. 344,258. Filed March 17, 1890.

GRAIN SEPARATOR AND CLEANER.—Charles R. Redel, Rochester, Minn. (No model.) No. 467,198. Serial No. 403,582. Filed Aug. 24, 1891.

WHEAT SCOURER AND SEPARATOR.—George W. Waters, Kansas, Ill. (No model.) No. 467,325. Serial No. 377,973. Filed Jan. 15, 1891.

BAGGING MACHINE.—Jose R. Mesa, St. Cataline, Correl Falso, Macuriges, Cuba. (No model.) No. 467,377. Serial No. 405,485. Filed Sept. 12, 1891.

BALING PRESS.—John A. Wright, Grayling, Mich., assignor of one-half to James K. Wright, same place. (No model.) No. 467,775. Serial No. 397,296. Filed June 24, 1891.

Issued on January 26, 1892.

AUTOMATIC GRAIN MEASURER.—Frank M. Sommer and Robert A. McGirr, Indianapolis, Ind. (No model.) No. 467,691. Serial No. 387,632. Filed April 4, 1891.

FEED MECHANISM FOR ELEVATORS.—Boston S. Constant, Logansport, assignor of one-half to Newton M. Bowen, Indianapolis, Ind. (No model.) No. 467,887. Serial No. 373,978. Filed Dec. 8, 1890.

COMBINED SCREEN AND CONVEYOR.—Micajah T. Singleton, Arcadia, Fla. (No model.) No. 467,833. Serial No. 384,502. Filed March 7, 1891.

HORSE POWER.—Peter Wirth, Marshfield, Wis. (No model.) No. 467,626. Serial No. 400,602. Filed July 4, 1891.

Issued on February 2, 1892.

GRAIN CLEANER ATTACHMENT.—Henry Bryan, Modesto, Cal. (No model.) No. 468,069. Serial No. 407,560. Filed Oct. 2, 1891.

GRAIN MEASURER AND BAGGER.—Gustav Anderson, Wells, Minn. (No model.) No. 468,091. Serial No. 385,954. Filed March 23, 1891.

CONVEYOR.—Charles W. Hunt, West, New Brighton, N. Y. (No model.) No. 468,109. Serial No. 397,807. Filed June 29, 1891.

DROP SCALE FOR MEASURING GRAIN.—Francis M. Gladish, Higginsville, Mo. (No model.) No. 468,173. Serial No. 385,177. Filed March 16, 1891.

CONVEYOR MECHANISM.—Frederic A. Lockwood, Boston, Mass. (No model.) No. 467,943. Serial No. 272,344. Filed April 30, 1888.

RECLEANER FOR CLOVER HULLERS.—John N. Kailor, Columbus, Ind., assignor to Reeves & Co., same place. (No model.) No. 467,978. Serial No. 406,052. Filed Sept. 18, 1891.

Issued on February 9, 1892.

GRAIN WEIGHER.—Thomas S. Pearson, Cassville, Ind. (No model.) No. 468,466. Serial No. 393,375. Filed May 20, 1891.

ELEVATOR BUCKET.—Friederich G. Winkler, Zschopau, Germany, assignor to the Friederich Georg Winkler Ma-

chine Co. of Maine. (No model.) No. 468,518. Serial No. 407,771. Filed Oct. 5, 1891.

WHEAT SEPARATING MACHINE.—Hiram J. Livergood, Bantford Canada. (No model.) No. 468,568. Serial No. 389,211. Filed April 16, 1891.

BALING PRESS.—John W. Brown and Albert A. Gehrt, Quincy, Ill., assignors to the Collins Plow Co., same place. (No model.) No. 468,688. Serial No. 400,923. Filed July 28, 1891.

TRADEMARKS.

[Issued since our last publication.]

WEIGHING SCALES.—Jones of Binghamton, Binghamton, N. Y. Application filed Jan. 9, 1892. No. 20,672. Used since 1885. The word, "RENSELAER."



The Buffalo Merchants' Exchange proposes to add two stories to its building.

Tickets of membership in the New York Produce Exchange are selling at \$900.

The grain section of the Omaha Board of Trade has been admitted to a representation in the Board of Directors.

The Montreal Corn Exchange Association met January 27 to elect officers. D. A. McPherson was chosen president, David Robertson treasurer and Charles Gould chairman of the board of review.

The St. Louis Merchants' Exchange directors have chosen the following as members of the committee on grain inspection: John W. Kauffman, George H. Plant, Charles H. Teichmann, J. B. Woestman, and J. W. Sharpe.

The sample tables on the floor of the Chicago Board of Trade were auctioned off January 10. For the first choice of one section, which is a fourth of a table, \$140 was paid; and for the 166 sections sold over \$8,000 was obtained.

The New York Hop Dealers' Exchange has been condemned by the brewers for authorizing dealings in futures and options. Under the new rules hops are being sold for future delivery in lots of twenty five bales or about 5,000 pounds.

Since the annual election no attempt has been made by the Chicago Board of Trade to interfere with the sending out of continuous quotations by private wire houses. President Hamill will, however, carry on the war against bucket shops.

Baldwin & Farnum have withdrawn their injunction restraining the directors of the Chicago Board of Trade from hearing evidence on the charges made against them by Elick Loutz, and have notified the directors that they were prepared to meet the charges preferred by Loutz.

The Duluth Board of Trade, at its meeting January 28 adopted resolutions against the abolition of dealings in futures and requested the Minnesota Representatives in Congress to use their influence and votes to prevent the passage of any bill having in view the prohibition of such dealings.

Trading in puts and calls. As the Chicago Board of Trade failed to pass resolutions as expected, indicating an intention of prosecuting, or giving information of those who deal in these unlawful trades, the check upon it has subsided, and the practice is again commenced with all of its stigma and reproach upon the Exchanges.—*Toledo Market Report.*

In the annual report of the Philadelphia Commercial Exchange are published letters requesting the Pennsylvania Railroad to make rates from Chicago via Erie to Philadelphia as low as rates made by other lines on grain to New York. It is set forth that instead of shipping to Philadelphia much grain is diverted to Baltimore which should have come to the former.

The Buffalo Merchants' Exchange elected officers January 13 as follows: President, John N. Scatcherd; vice-president, Wm. C. Newman; treasurer, C. W. Hammond; trustees for one year, O. G. Spann, M. S. Burns, F. L. Danforth, John T. Stewart; trustees for two years, J. J. H. Brown, C. A. Warfield, George H. Wolcott, R. H. Hebard; trustees for three years, George Clinton, Henry F. Shuttleworth, Leonard Dodge, and John J. McWilliams.

The Boston Chamber of Commerce dedicated its new building January 21 with very elaborate ceremonies. Some of the members gave an amateur theatrical performance very creditable to themselves and greatly enjoyed by those present among whom were many well-known public men and prominent representatives of the commercial organizations of the country. At the banquet in the evening 400 guests listened to speeches on the tariff, American shipping, free trade with Canada, interstate commerce, etc., by Governor Russell of Massa-

chusetts, Senator Cullom of Illinois, ex-Secretary Bayard, and others.

The New York Produce Exchange as a body and its members individually have done better business the past year than "any other exchange in the city," says the *Produce Exchange Reporter*. The dealings of the Exchange aggregated 1,692,272,000 bushels wheat, and 402,957,000 bushels corn, against 1,238,327,000 bushels wheat, and 431,148,000 bushels corn, for the preceding year.

The annual meeting of the Winnipeg Grain Exchange was held recently at which officers were elected as follows: J. A. Mitchell, president; A. Atkinson, vice president, and C. N. Bell re-elected secretary-treasurer; board of arbitration, S. A. McGaw, W. A. Black, R. Muir, G. R. Crowe, D. W. Cumming, H. Crowe, R. P. Roblin, Col. McMillan, A. Atkinson, J. A. Mitchell. The members partook of a dinner in the evening and listened to several short speeches.

The Chicago Board of Trade directors have appointed George F. Stone, secretary; R. S. Worthington, assistant secretary; S. H. Stevens, inspector and registrar of flaxseed; H. B. Owen, W. McDougall, and W. I. Cruikshank, sample grain inspectors; Lyon, Seckel, Waters, Henderson, and Wright, committee on flaxseed inspection; Beach, Fisk, and Hill, committee on warehouses; Hill, Rawleigh, and Healy, committee on weighing; weigher of grain, John H. Walker.

The annual election of the Duluth Board of Trade was held January 19 with the following result: President, Frank S. Daggett; vice-president, Otto C. Hartman; directors, John MacLeod, George Spencer, W. S. Birch, George Rupley; board of arbitration, J. H. Cook, C. J. Kershaw, Jr., J. N. McKinney; board of appeals, W. S. Moore, George Rupley, Thomas Gibbons; inspection committee, George Rupley, G. G. Barnum, C. Canning, Walter Turle, Ward Ames.

The Liverpool Chamber of Commerce have reconsidered the decision they arrived at last month not to act as a local committee for the Chicago Exhibition, and the secretary has informed Sir Henry Wood that the chamber, having rescinded their previous resolution, are now prepared to serve as a local committee for Liverpool, and to distribute information about the exhibition in their district.—*Liverpool Journal of Commerce.* Their better judgment finally overcame their spitefulness and their narrow-mindedness.

President F. W. Thompson of the Winnipeg Grain Exchange, in his annual address before that body said: The daily market reports are as complete as they can very well be made with the funds at our command. It is to be regretted that Chicago quotations are not more easily and less expensively obtained. Strong efforts have been made to secure them upon the same basis of cost as our other reports, but without success; but it is to be hoped the Chicago Board of Trade may yet find it possible to allow these quotations to issue officially for the general benefit of the trade.

The annual election of officers and directors of the Baltimore Corn and Flour Exchange January 25 resulted as follows: President, John L. Rodgers; vice-presidents, J. J. E. Hinrichs and Chas. England; secretary, William F. Wheatley; treasurer, George T. Kenly; directors, John L. Rodgers, J. J. E. Hinrichs, Charles England, George T. Kenly, William M. Knight, James Lake, William R. Hammond, W. G. Bishop, Thomas H. Botts, Douglas M. Wylie, William H. Kellum, James Hewes, C. P. Blackburn, Walter Kirwan, and F. Megenhardt.

At the annual meeting of the Philadelphia Commercial Exchange January 26, officers and directors were elected as follows: President, Lincoln K. Pasmore; vice-president, John C. Klaunder; treasurer, Edgar G. Thomas; directors, Walter F. Hagar, Harvey K. Hinchman, William R. Brice, Charles R. Koch, William B. Potts, and Alfred Brooke. The grain committee is as follows: E. W. Barker, Frank L. Neall, E. A. Hancock, George H. Rodgers, S. J. Clevenger, C. L. String, and A. C. Kerr. The election of Mr. Pasmore assures a vigorous and progressive administration of the affairs of that organization.

We exported 1,054,224 bushels of flaxseed in December, against 54,842 bushels the foregoing December; and during the year just ended we exported 3,061,497 bushels, appraised at \$3,374,969, against 69,870 bushels, appraised at \$90,152, the year preceding. This great and gratifying increase began in 1890.

In the first half of January Baltimore received 2,305 cars of corn, Philadelphia 2,273 cars and New York 1,850 cars. At Philadelphia 487 cars graded below No. 2, in Baltimore 546 cars, and in New York 1,455 cars graded below No. 2. From this it would appear that most of the corn received at New York grades lower than at either Philadelphia or Baltimore.

A considerable acreage in the Northwest will be sown to wheat without preliminary plowing. After burning the stubble a grain drill will be run over the land. The reason given for this departure from the method commonly followed is that the surface being more compact evaporation is retarded, that the standing stubble will afford some protection to the sprouting grain and that the labor of plowing is obviated. Farmers in the East believe in deep plowing, but it is possible that a different method is more adapted to the conditions existing on the dry prairies of the West.

CROP CONDITIONS.

TEXAS.—Texas reports that the general conditions of the wheat crop are not as good as at this date last season. From January 11 to January 15, there was exceedingly cold weather for Texas, but so far no apparent damage has been done to the crop.

ONTARIO.—The wheat all over Western Ontario is well covered with snow, and has been since the middle of January. So far there is no damage to the crop. Deliveries are light, and it is estimated that nearly half of the wheat in Ontario is still in farmers' hands.

NEBRASKA.—In Nebraska there is no free selling of corn; most farmers sold a portion when corn was up. They are not in need of money, and have an abiding faith in higher prices. There is not as much corn at stations as a year ago. Fully three-fourths of the oats are gone.

SOUTHERN MICHIGAN.—Comparing the crop with last year, it is decidedly backward. It is tender, and sharp freezing and thawing would injure it badly. Farmers are selling but little wheat. The movement is the smallest for ten years for this season of the year. Farmers have all been expecting higher prices, and their faith in this respect is still strong.

The Cincinnati Price Current estimates the production of barley, rye and buckwheat for the last three years as follows: Barley, 75,000,000 bushels in 1891, 63,000,000 in 1890, and 65,000,000 in 1889; rye, 33,000,000 bushels in 1891, 28,000,000 in 1890, and 30,000,000 in 1889; buckwheat, 12,000,000 bushels in 1891 and 1889, and 11,000,000 bushels in 1890.

KANSAS.—Secretary Mohler of the State Board of Agriculture says: "There is little difference between the wheat area this year and last. The conditions last fall were not favorable, but have been this winter and if they continue there will be another big yield of wheat. There is an increased acreage in the central and western directions and a decreased acreage in the eastern belt."

WASHINGTON, WATERVILLE, DOUGLAS CO.—The grain buyers have made a careful calculation of the fall acreage sown, and find that over 40,000 acres tributary to the city are now in crop. They estimate that from the spring sowing over 1,000,000 bushels of wheat will be raised within fifteen miles of Waterville, besides the oats, barley, rye and corn that will be harvested within the same area.

ILLINOIS.—The last crop report of the Illinois State Board of Agriculture shows the value of the corn crop for 1891 to have been \$83,990,210; winter wheat, \$26,533,626; spring wheat, \$318,926; oats, \$32,312,485; rye, \$2,541,905; barley, \$329,220; hay, \$24,212,232; Irish potatoes, \$3,955,875. The total value of the agricultural and live stock products of Illinois for the year is placed at \$257,332,190.

IOWA.—In Iowa farmers are holding back their corn, and not the usual amount is in the farmers' hands. Carefully looking over the corn situation I draw from my reports that there is not any more corn in the country now than at this time last year. The amount of old corn left over last year, and the early feeding and marketing of the crop this year will certainly offset the difference in the yield of the two crops, if not more than do it.—S. T. K. Prime.

SOUTHERN MISSOURI.—In Southern Missouri, Prime says, winter wheat will not compare at all with that of last year. It is weak and backward, and the late severe cold weather has told severely on the crop. It was covered with snow about half the time since December 1. The ground now is bare, and freezing and thawing have been the order of the day. The mild weather has started the wheat to grow. Deliveries of wheat are light, farmers being reluctant to sell at present prices.

OHIO.—Southern Ohio reports wheat covered with snow during nearly all the month of January. The snow has now all gone, the wheat is bare, and no growth up to this date. Its general condition, however, compared with that of a year ago is poor. Farmers are generally holding wheat for \$1, and at present very little is changing hands. In Northern Ohio the general condition of the crop is about the same as a year ago. The ground was covered with snow during January, but has now all gone.

CENTRAL ILLINOIS.—In Central Illinois farmers contracted for corn freely at from 35 to 40 cents. It commenced to move in October, and many farmers who usually hold until summer sold at 40 cents, making the early movement free. When prices dropped dealers have been busy to get cars enough to get their contracts off and handle the oats, which have been sold more freely than corn on account of the price holding up better than for corn. Farmers have been liberal sellers of oats. Practically no ear corn is at the stations.

The great corn belt has not remarkably changed in its salient features within the last few years. On the crop of 1891 Iowa leads with 9,560,000 acres and 351,000,000 bushels. Illinois is second, with 7,011,000 acres and 235,000,000 bushels. Then follow in order Missouri, Kansas, Nebraska, Indiana and Tennessee, the latter being credited with 82,552,000 bushels. In oats Illinois takes the lead, with 3,069,000 acres, and Iowa is second, with 2,795,000 acres, the production being 111,000,000 and 102,500,000 bushels respectively. Minnesota is the only

other state in which the production of oats exceeded 50,000,000 bushels.

PENNSYLVANIA, MILLHEIM, CENTER CO., February 9.—This county has had but little very good wheat weather this winter. If present prospects figure there will be two-fifths less for the harvest of 1892 than there was in 1891. D. C. GINGRICH.

ILLINOIS.—In his last crop report Prime says: In Southern Illinois the weather is mild and warm, the frost about all out of the ground, but wheat has hardly commenced to grow. Reports show that the crop generally looks fairly well since the snow left; farmers selling little wheat, and there would be a free movement at 90 cents if they could get it. In Central Illinois wheat is not as forward or thrifty as a year ago. There are no complaints of killing of plants by freezing and thawing. Millers and grain buyers report no wheat coming in. Millers are carrying small stocks.

KANSAS.—There is no comparison of the winter wheat outlook in Southern Kansas with that of a year ago. Then it was fine and covered the ground. This year it scarcely shows above the surface, and many farmers claim that the plant is dead. Be the condition what it may, it is certainly weak and struggling for life. It was covered with snow for about one week. The ground thawed out after the cold spell. In Northern Kansas the wheat crop is not as good as a year ago. The ground was covered three days with snow; it is now bare and the plants are beginning to grow. So far there is little injury from freezing and thawing.

MICHIGAN.—The Michigan crop report for February, issued by the Secretary of State February 9, imparts the information that the weather conditions during January were favorable for the growing wheat. Correspondents in all sections of the state, with few exceptions, report that the crop suffered no injury, the ground being well covered with snow nearly all the month. The total number of bushels of wheat reported marketed by farmers in January was 981,048, and the total amount marketed from August to January was 9,850,695 bushels, which is 1,069,847 bushels more than was reported marketed in the same months last year and 32 per cent. of the estimated crop of 1891.

INDIANA.—In Southern Indiana the condition of the wheat crop compares unfavorably with that of a year ago at this time. It was covered with snow about three weeks during December. The crop is now bare, little thawing and freezing, and the crop not yet commenced to grow. The movement of wheat from farmers' hands is light, with no prospect that it will change until farmers feel more assured than they do now that the present crop will come out all right. In Central Indiana the situation is practically the same. In Northern Indiana the condition of winter wheat is much inferior to that of a year ago. As a rule millers are carrying light stocks of wheat, and unless prices advance there is no prospect of any increase in receipts.—Prime's Crop Report.

NORTH DAKOTA.—The annual report of the Commissioner of Agriculture and Labor of North Dakota shows that in 1891 there were 2,616,314 acres sown to wheat, with a yield of 27,554,611 bushels, or 10 and a fraction bushels to the acre. In 1891, 2,865,502 acres were planted in wheat, bringing a total yield of 64,713,328 bushels, or an average of 22.58 bushels to the acre. The following are the figures for the other cereals besides wheat: Oats, total acreage, 420,224; average yield 42.54 bushels per acre; total number of bushels raised in the state, 17,871,528. Barley, total acreage, 143,368; average yield, 36.76 bushels per acre; total number of bushels raised in the state, 5,270,685. Flax, total acreage, 106,613; average yield, 11.64 bushels per acre; total number of bushels raised, 1,214,018. Rye, total acreage, 11,898; average yield, 26.05 bushels per acre; total number of bushels raised, 310,067. Potatoes, total acreage, 19,556; average yield, 178.61 bushels per acre; total number of bushels raised, 3,494,801. Corn, total acreage, 35,693; average yield, 24.25 bushels per acre; total number of bushels raised, 865,593.



Gov. Boyd of Nebraska has appointed R. P. Thompson, chief grain inspector at Omaha.

S. D. Cargill, the grain elevator man of Minneapolis, has departed with his wife for California, and will visit San Diego.

Junius S. Smith, who has been reappointed weighmaster of the Buffalo Merchants' Exchange, is about to go on a tour of the South.

The amount of wheat yet in the hands of farmers must be considerable, for the movement has been small in the interior ever since winter fairly set in. Among the winter wheat farmers the estimates run, in different sections, all the way from 'very little' to 25 per cent. and to 50 per cent., and in rare instances reports even go above 50 per cent. yet held back. Unquestionably there is a great deal of wheat owned by farmers that is held to await the prospect of the new crop.—Market Record.

PRESS COMMENT.

NEW YORK'S ELEVATOR POOL.

It is of interest to Western producers of grain to know that it is proposed in the New York Legislature that the state shall buy the elevators at Buffalo, New York City and other places, or build new elevators and operate them by public officers appointed for that purpose. The elevator tolls on Western produce are excessive; the monopoly is an outrage, and the present system is wrong. But a system of state ownership and political management would be infinitely worse.—Chicago Journal.

CONSIGNORS SHOULD BE CAREFUL.

Merchants who consign goods to commission houses in this city will find it to their advantage to make inquiry in regard to the standing of houses to whom they consign. It seems to have been a very prolific season for dead-beat commission men. All over the country merchants have been caught by some smooth worded circular, and the trade journals throughout the length and breadth of the United States are now warning merchants to use more discretion in consigning merchandise to unknown parties.—Ohio Merchant, Cleveland.

SIGNS INDICATE A SURPRISE.

Every day we believe the signs are more unmistakable that the U. S. A. has a second great surprise in store for the trade, after having shipped at an almost incredible rate for six months, to-wit, 16,000,000 quarters, or rather over 5,000,000 bushels weekly for twenty-five weeks (as much each week as they shipped per month during the same period of 1889), she is about to commence a new chapter. We believe that during part of the remaining twenty-seven weeks of the season an almost equal surprising falling off will occur.—Corn Trade News, Liverpool.

NOT DESERVING A BOUNTIFUL CROP.

It seems to us almost that this country was not deserving a bountiful crop. They certainly are badly deficient in good management of one. Since June 1 the sellers of wheat have crowded the markets of the old world. The sale of 50 millions of wheat before a bushel of the crop was moved was the beginning, and that policy has been pursued on a more limited scale ever since. We have ourselves done more to depress values than all the importing markets combined. What is the use? We shall not export a bushel more than we are now moving by pushing down the price. It is the conventional dull season abroad.—Toledo Market Record.

DECLINE IN BREADSTUFFS.

The decline in wheat and flour has been too heavy since this crop began to move, not to be felt severely in commercial circles. At the very moment when farmers should have sold most freely they were advised by middlemen to hold their wheat. Fortunately for the country they sold freely and got off the equal to an average crop at good prices. If the remainder has to sell lower there is comfort in the full returns secured for what is sold. A third of the surplus appears to be on hand and if higher prices come they will be suitably welcomed; if lower, they can be endured, for we have pretty full returns in hand now.—Minneapolis Market Record.

LET THE FARMERS CEASE CROAKING.

The more we read about the famine in Russia the greater is our enthusiasm over the possibilities of our own country. Children die with nothing in their stomachs but rags, bark and the like. At Ekaterinburg a woman went to the priest to see if she might be allowed to kill her four children to save them from further suffering. At Riasan fully one-half the population is dead. The poor wretches sell their clothes, and there are speculators at hand to buy. Women sell their hair. Even cannibalism is said to have occurred. Farmers trade their land, their stock, their implements and their all for miserable food. Let the farmers of the United States now cease croaking long enough to thank heaven for their happy condition.—St. Louis Miller.

TWO REQUIRED TO MAKE A MARKET.

It is not illogical to expect that our wheat surplus at the end of this crop year will be larger than that of twelve months previously. That prospect is also a sufficient fact to quote as demonstrating the folly of the Alliance advice to "hold your wheat," which is said to have been distributed broadcast among the farmers of some sections. If any were so simple as to follow it they now find themselves confronted with a situation which certainly does not favor the hope of being able to realize higher prices by further holding, while, if they sell now, they cannot get as much for the grain as was obtainable a few weeks ago. The Alliance philosophers may see reason to believe that it takes two parties to make a market, and that the views of the one are not necessarily accepted by the other. The seller cannot get his price unless the buyer will pay it.—Chicago Tribune.

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CLARK'S GRAIN TABLES.—This work is published in several different forms, for use in different lines of business. In these tables pounds are reduced to bushels so that a buyer can quickly determine the correct number of bushels in a load without doing any figuring. Their use effects a saving every day of more than time enough to pay for them. The edition intended principally for reducing team scale weights to bushels contains nine tables, and is bound in paper. Price 50 cents. This will be found invaluable to country buyers. A new edition, intended for shippers and commission merchants, reduces any quantity up to 64,000 pounds to bushels. It contains sixteen tables, and is neatly bound in leatherette. Price, \$1.50.

CLARK'S DECIMAL GRAIN VALUES.—A series of tables for instantly finding the cost of any number of pounds at any possible market value per bushel, also reducing pounds to bushels on the same page. It is the design of this work to show at a glance, or with the simplest calculation, the cost of any quantity of grain. The method adopted is the result of careful study and is a novel and original combination of decimals in type of differing faces, by which the great number of calculations necessarily involved are presented in a clear, concise and comprehensive manner. Values are shown directly from pounds, without reducing to bushels, while for convenience, where it is necessary or desirable to indicate the quantity by measure, the equivalent bushels and pounds are shown upon each page. The range of prices covered by the tables is for oats 10 to 70 cents per bushel; for corn, rye and flaxseed 10 to \$1.10; for wheat 30 to \$1.50, and for barley 20 to \$1.50. The book contains 90 pages, is well printed, and bound in half morocco. Price \$7.50; extra quality paper and binding, \$10.00.

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Miscellaneous * Notices *

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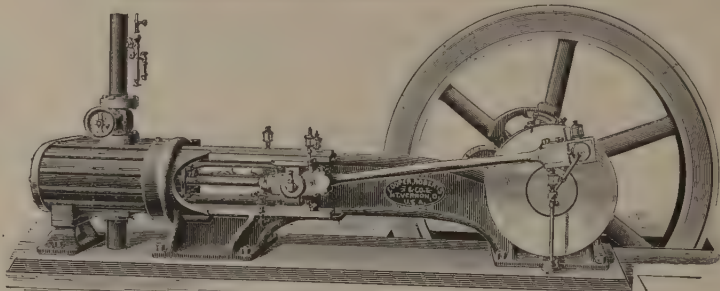
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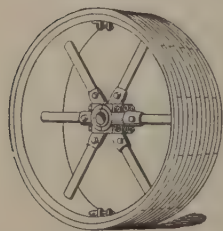
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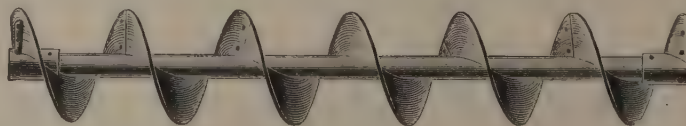
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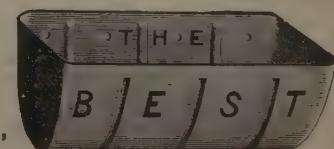
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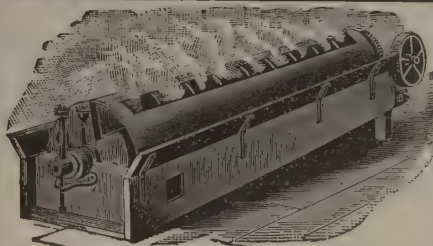
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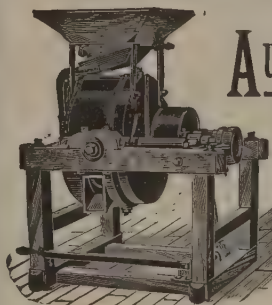


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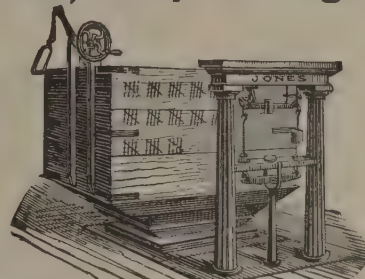
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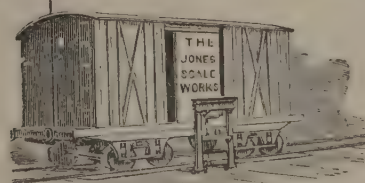
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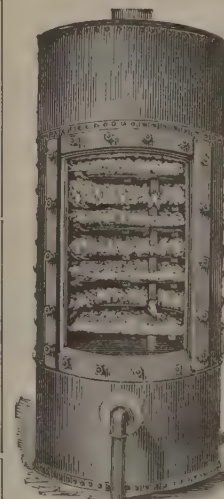
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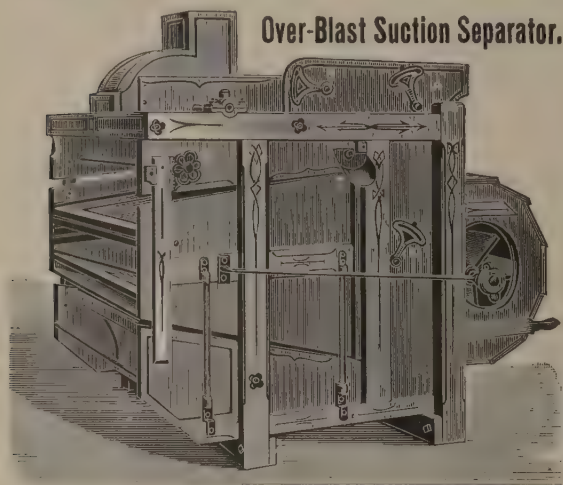
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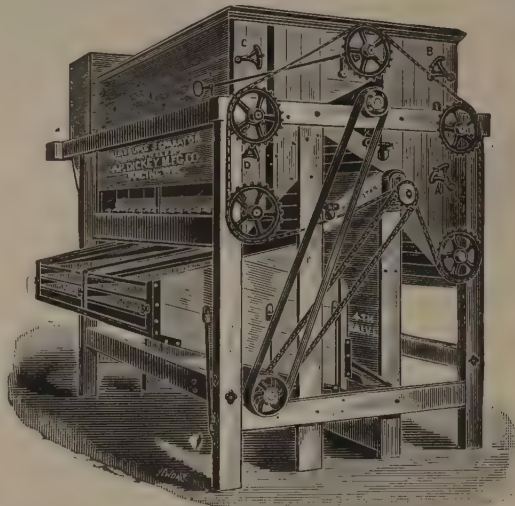
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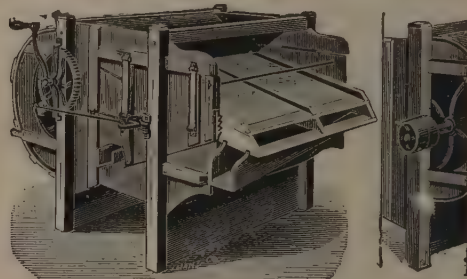
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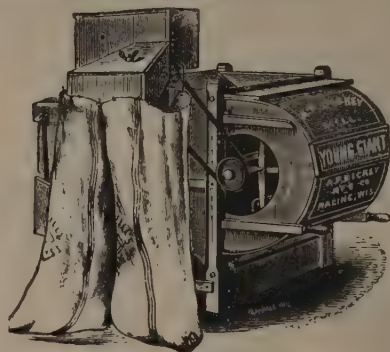
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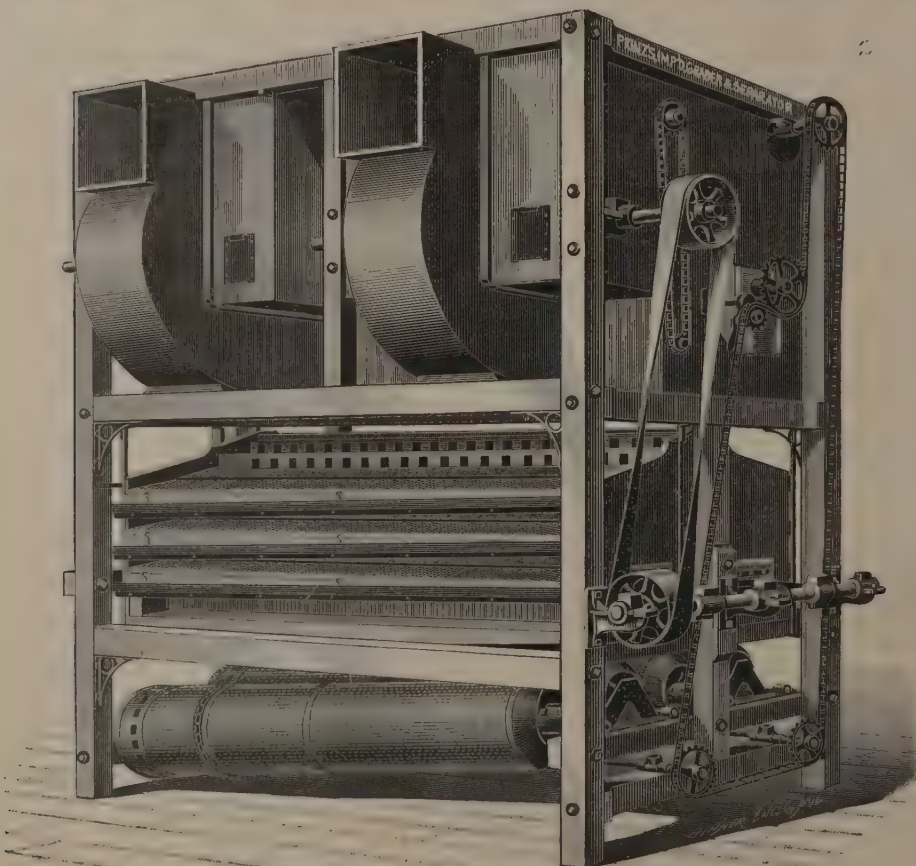


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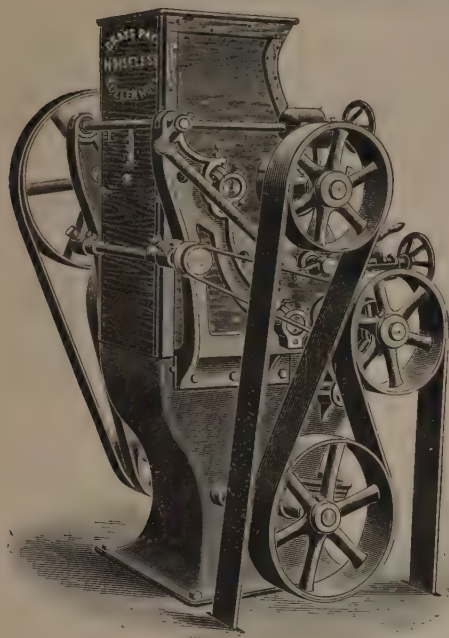
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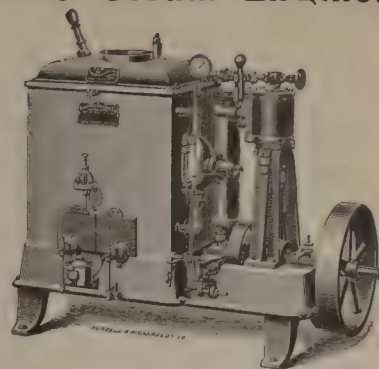
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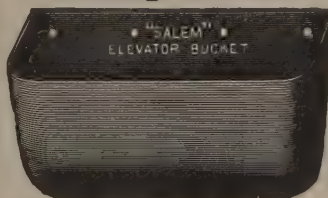
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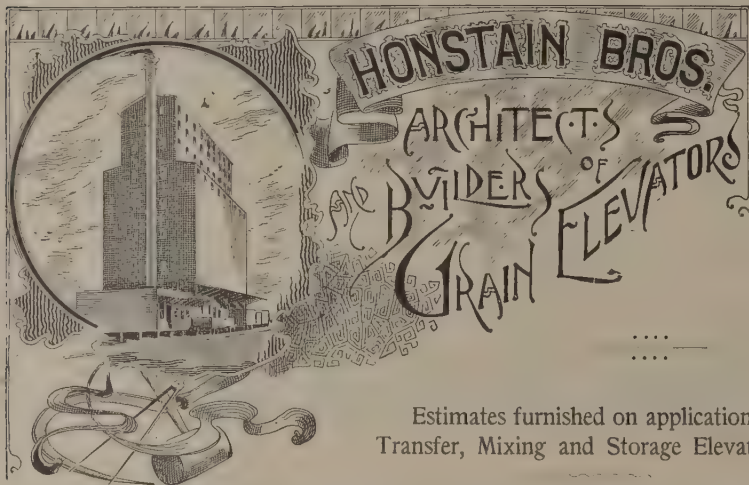
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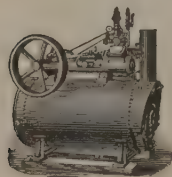
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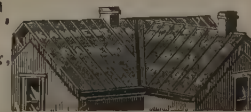
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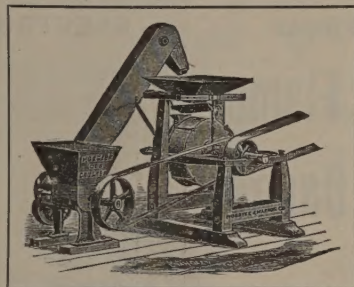
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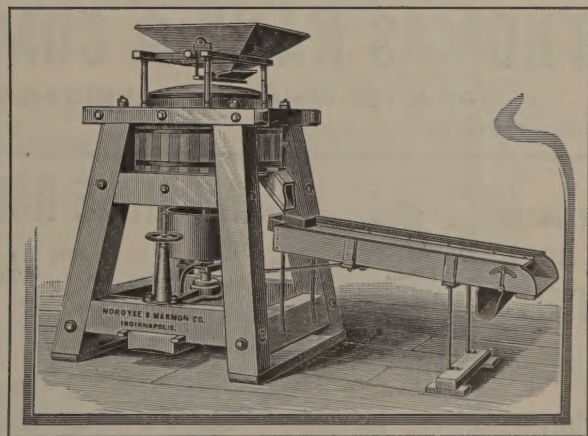
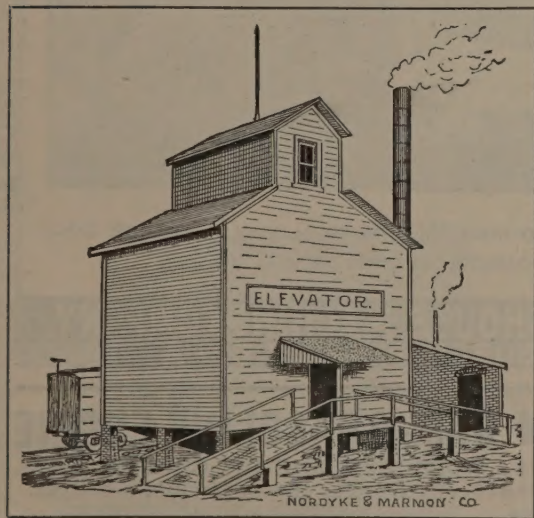
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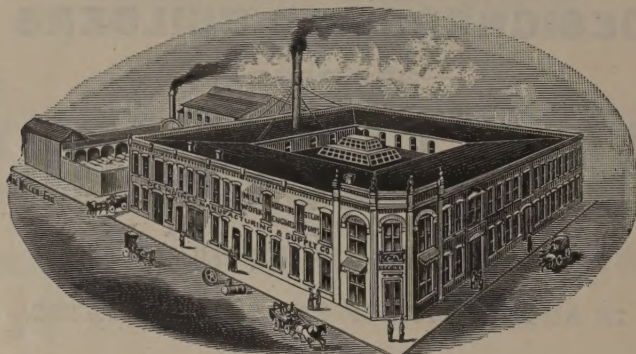
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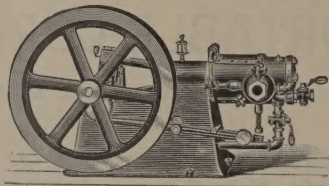
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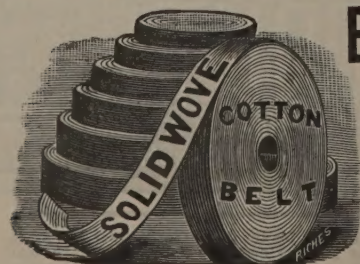
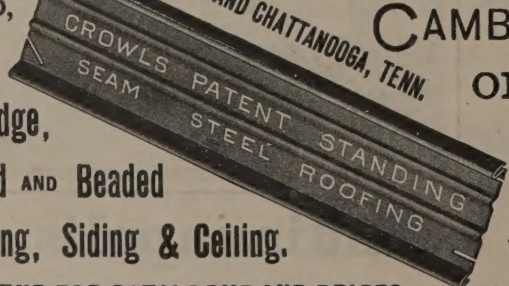
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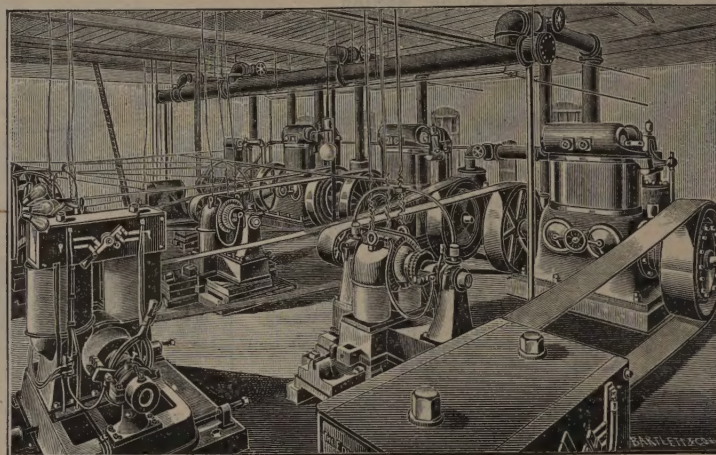
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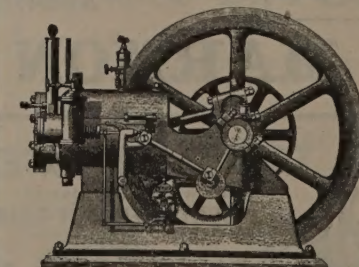
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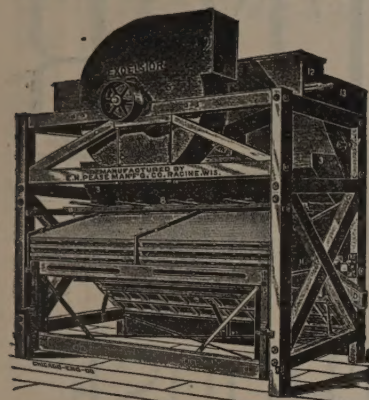
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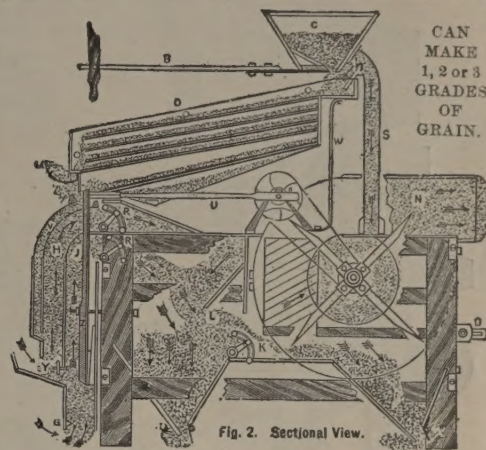
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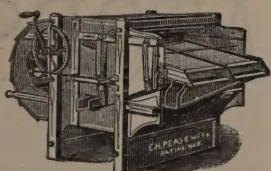
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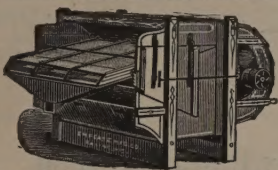
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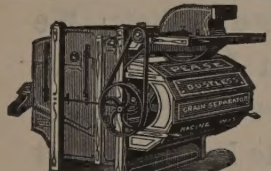
FAMOUS HAND OR POWER CLEANERS COUNTRY ELEVATORS. FOR



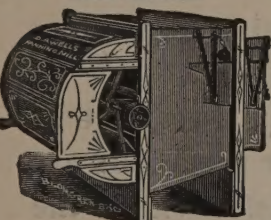
Pease Side-Shake Mill for Warehouse.



Pease End-Shake Mill for Warehouse.



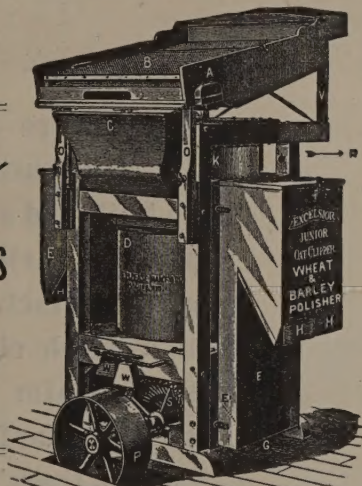
Pease Dustless Separator for Warehouses and Mills.



"Wells" Warehouse Mill.—Extra Large Capacity.

IT WILL PAY
YOU
TO GET OUR
CATALOGUES
PRICES

AND PROOFS OF
SUPERIORITY
BEFORE BUYING
ELSEWHERE.



EXCELSIOR JUNIOR
Oat Clipper, and Wheat and
Barley Polisher, is the Sim-
plest, Most Compact, LIGHT-
EST Running, Quickest Ad-
justable Machine of its kind
made.

WE FULLY WARRANT

THE SUPERIORITY

OF THE
MATERIALS USED,
THE CONSTRUCTION and
OPERATING QUALITIES

OF ALL OUR

MACHINERY.

ADDRESS

—ALL—

LETTERS CAREFULLY

—TO—

PEASE
SPECIAL
FLAX MILLS
ARE
SUPERIOR
TO ALL OTHERS.



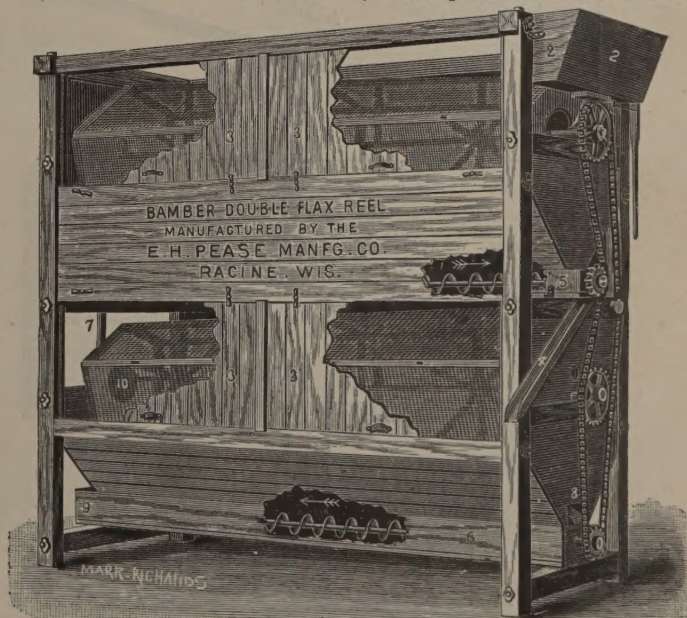
SAFEST,
MOST DURABLE
—AND—
POWERFUL PULLER
KNOWN.

HANDLES 1 to 30
Loaded Cars at once
on STRAIGHT and
LEVEL TRACK
and pro-rata on
GRADES and
CURVES.

"HERCULES" POWER CAR PULLER.

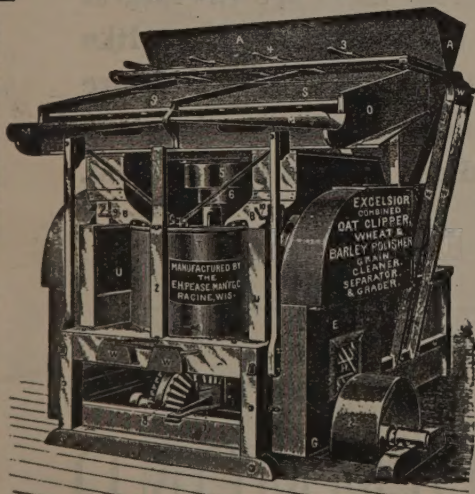
OUR FLAX REELS

Are Adopted and in more General Use by
THE MOST EXTENSIVE FLAX HANDLERS
Throughout the United States, than any similar Machines made



Made with 1, 2 or 4 Reels in one Chest, and with or without
"Scalping Shoe."

Reels of any desired style or dimensions made to order.



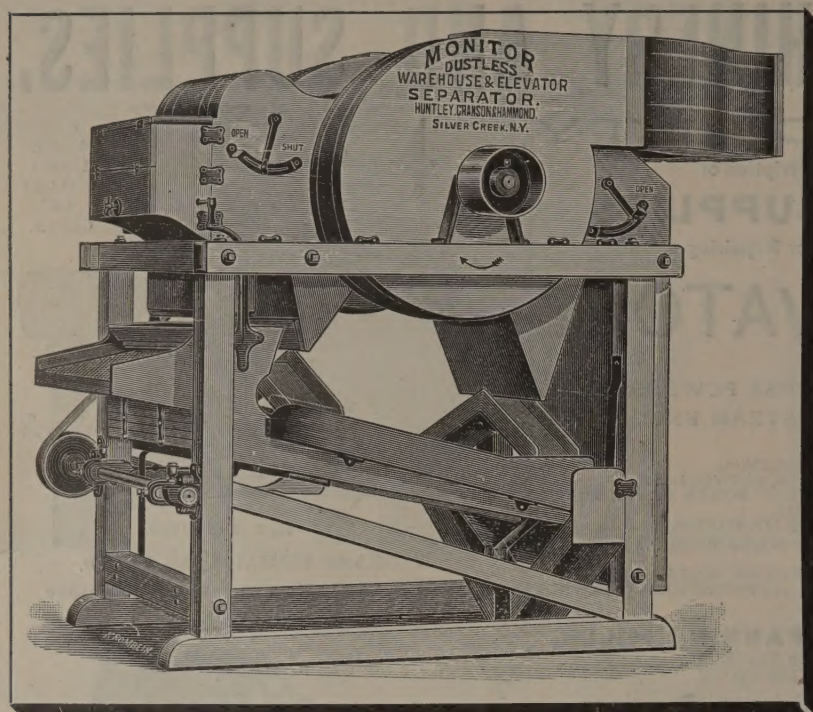
EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and
General Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

SEE OPPOSITE PAGE.



THE MONITOR ELEVATOR AND WAREHOUSE SEPARATORS.

BROOKLYN, N. Y., Feb. 15, 1892.

The Separators are the best I have any knowledge of, and are doing much better work than any we have ever used. I believe them to be the best made.

JEWELL MILLING CO.,

Per H. S. JEWELL.

ALBION, MICH., Feb. 15, 1892.

The Separators that you put in for us are working to our entire satisfaction. We were so well pleased with the first that we put in the second, and we have no reason to change our favorable opinions of same.

ALBION MILLING CO.

MINNEAPOLIS, MINN., Feb. 1, 1892.

The Monitor Warehouse Separator shipped us last November has been working for some time, and proves satisfactory in every particular. We have two other machines of another make which were put in when the house was built, and are supposed to be of the same capacity each of your machine, but we find that your machine will do as much work with less power as the two combined, and do that work much better. Our Foreman states that he never saw a machine that ran so easily, and that could be taken care of with so little trouble, which is considerable for him to say as he is prejudiced in favor of another make of machine which we did not accept.

CITY ELEVATOR CO.

CLAIMS are often made without a good basis to sustain them. Here's a fact: We have built and sold more than 1,500 Monitor Separators during the past three years. That's a bald bare fact. It is better to have it a fact than a simple claim. It is a fact that bears out our claim that the Monitor Separators have taken the front rank.

Then, there's another fact: Every one of these more than 1,500 Monitor Separators are giving the most perfect satisfaction to the users, and among these users are the largest elevators in the world. Would you like to have some evidence that our statements are true? Write us; you will find our prices low, our terms right, and our guarantee iron-clad.

HUNTLEY, CRANSON & HAMMOND, SILVER CREEK, N. Y.

WESTERN BRANCH,
63-65 SO. CANAL STREET, } B. F. RYER, Manager.
CHICAGO, ILL.

J. J. WALTERHOUSE, Gen. Agt.
WINNIPEG, MANITOBA.